

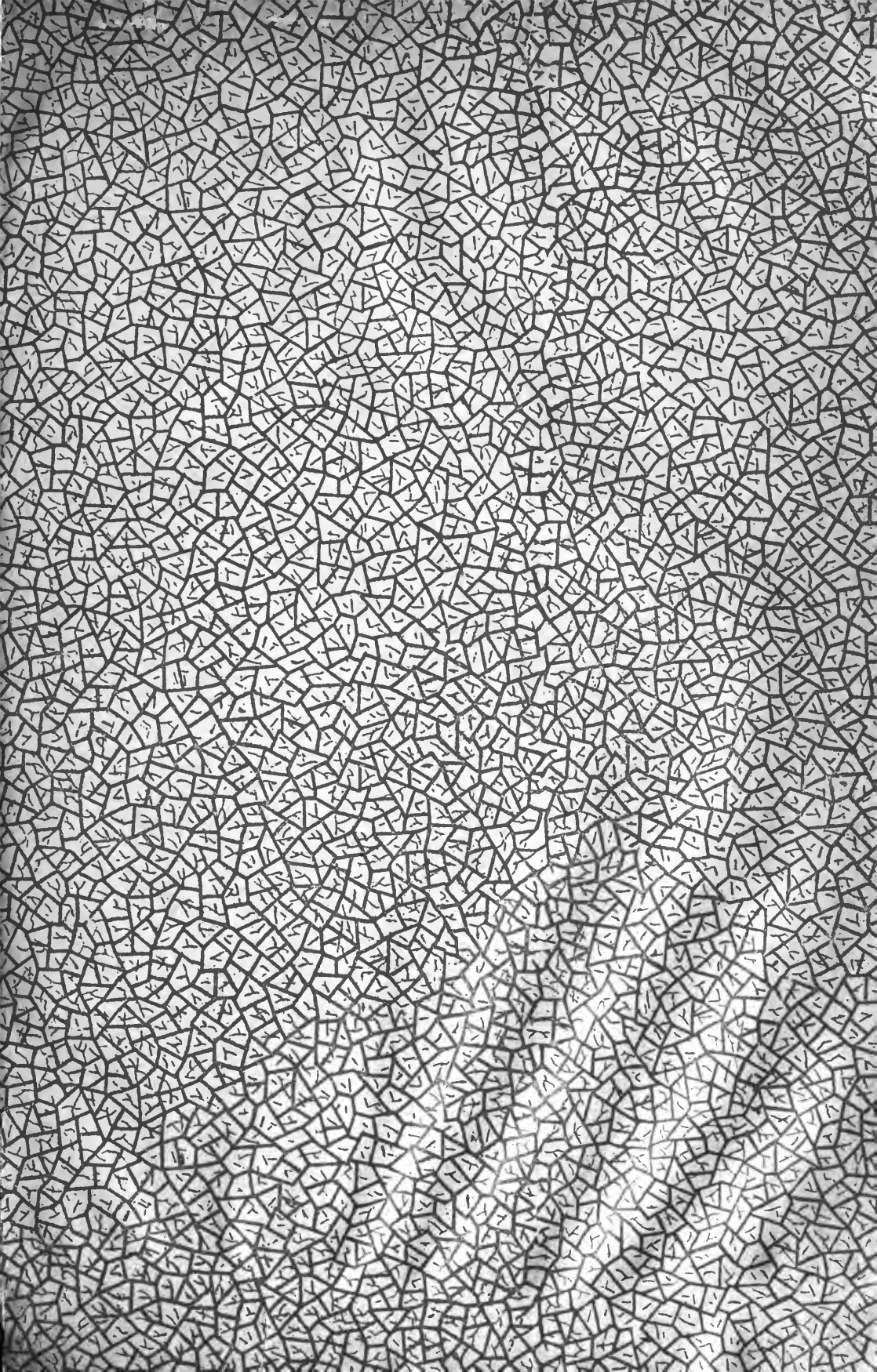


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ON
LAND AND SEA



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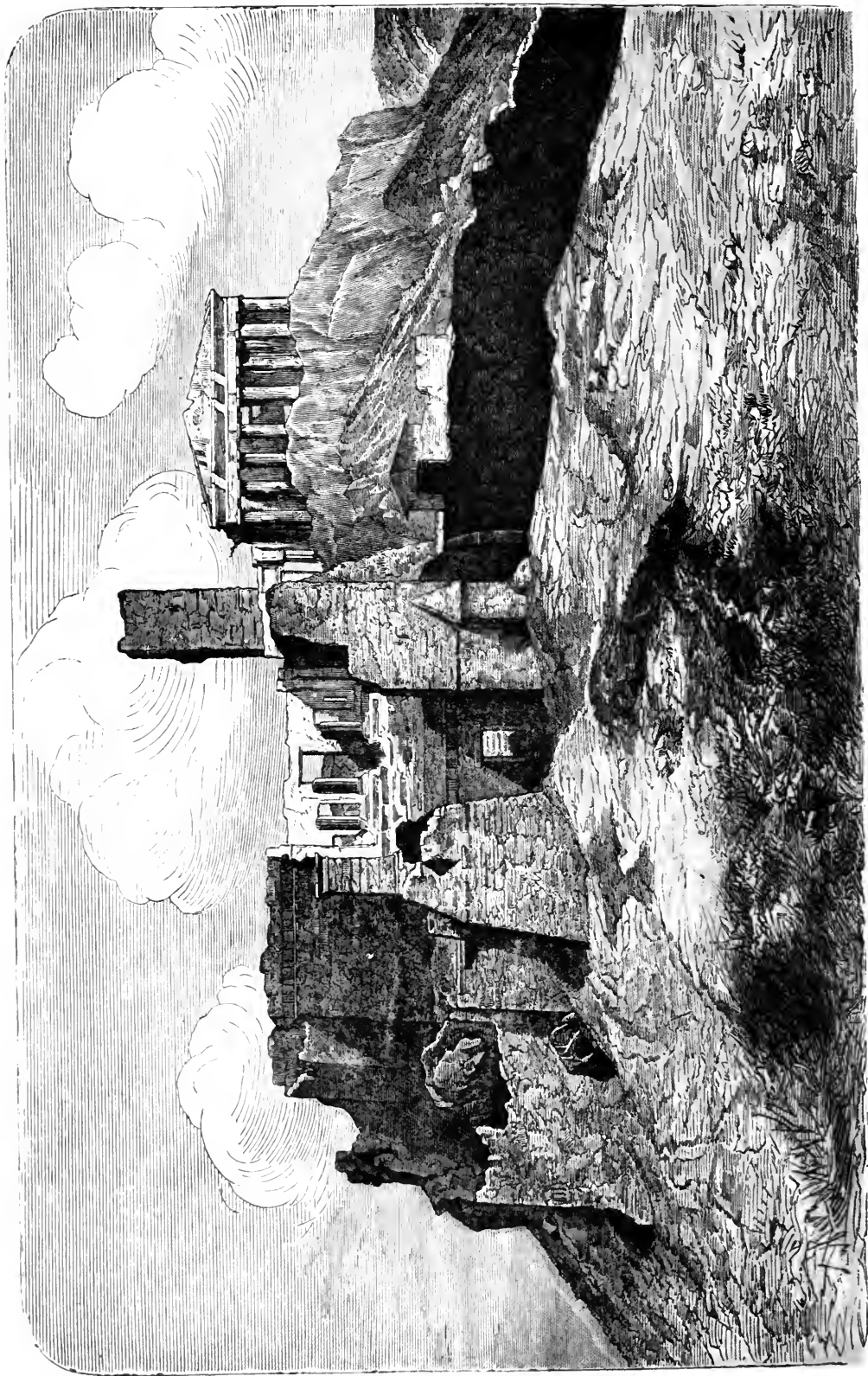
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~~With best wishes from~~

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~~March 1921~~



WESTERN VIEW OF THE ACROPOLIS, ATHENS.

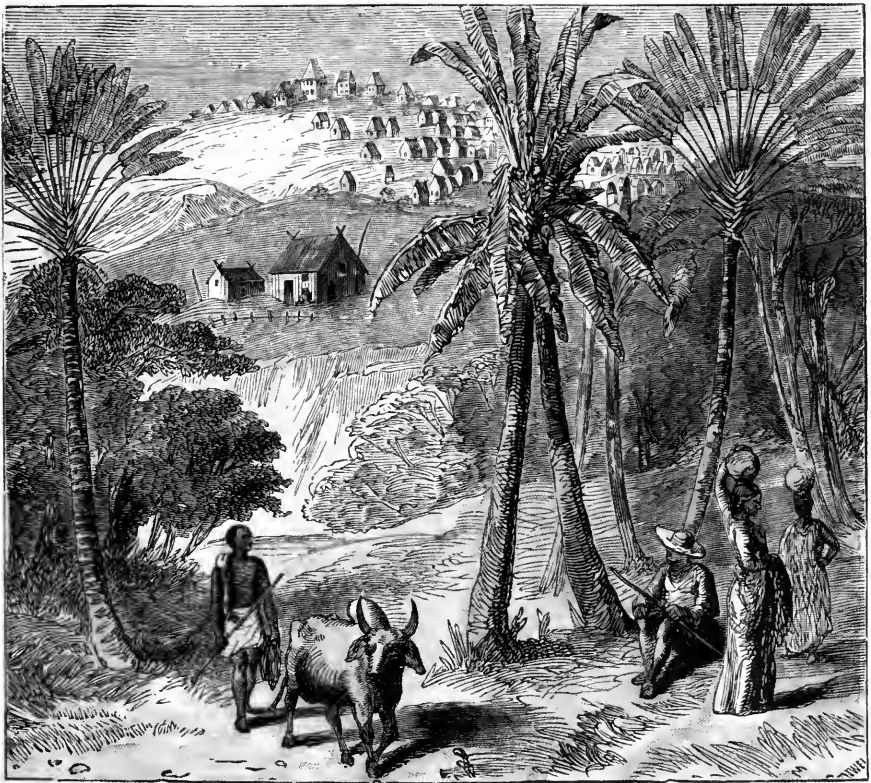
PICTORIAL

TRAVELS ON LAND AND SEA

IN VARIOUS PARTS OF

THE WORLD

WITH NUMEROUS ILLUSTRATIONS



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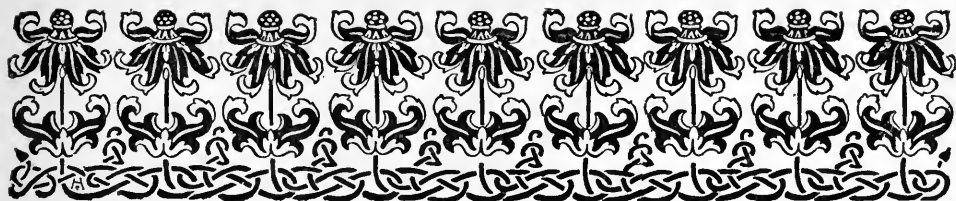
A COLLECTION OF TALES AND INCIDENTS OF TRAVEL IN VARIOUS
PARTS OF THE WORLD, WITH DESCRIPTIVE
ACCOUNTS OF PERSONAL ADVENTURES,
WONDERS AND CURIOSITIES
OF SCENERY, ETC. ETC

ILLUSTRATED WITH NUMEROUS WOOD ENGRAVINGS BY EMINENT
ENGLISH AND FOREIGN ARTISTS



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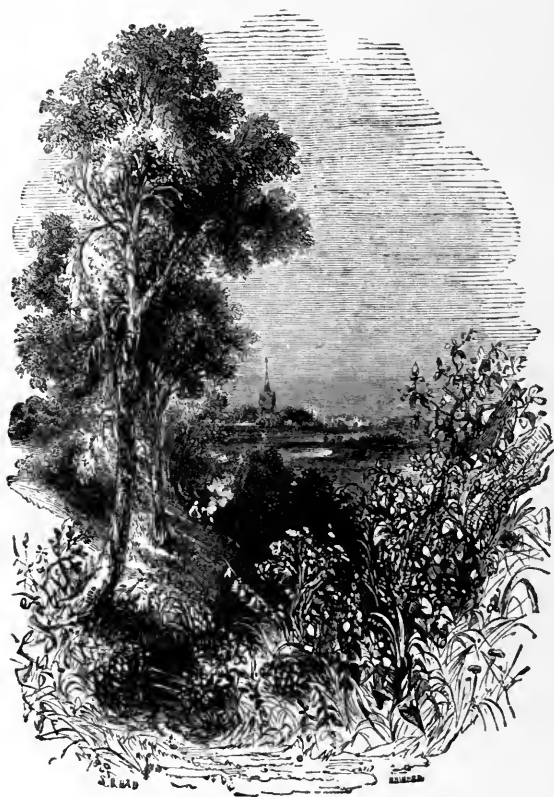
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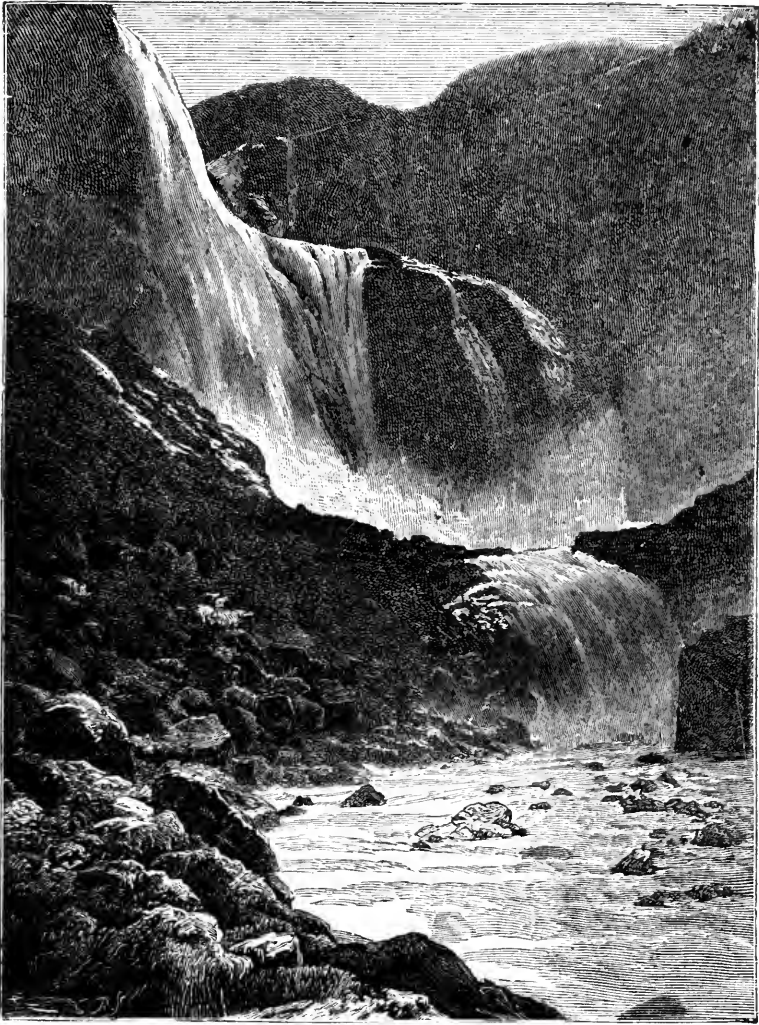




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THE SCENERY OF NORWAY.

NONE of the largest fjords, if not the largest, in Norway, is the Nærøfjord, an arm of the Aurlandsfjord, which is a part of the Sogne. The fjord is a geographical feature almost peculiar to Norway. In a modified form it is seen on the southern coast of Finland and Sweden, but, in its glory, it is not found outside of Norway. Where the Hudson River breaks through the High-

lands, you see, in the deep waters below you, and in the steep hill above you, and in the narrow gorge that hems you in, a mild type of this characteristic of the whole western coast of Norway. Imagine a country a thousand miles long, and from fifty to one hundred miles broad, with a mountain chain rising, in some places, to the height of 8,000 feet, cleft in irregular lines from the top to the bottom, and from the seashore inland ten, twenty, fifty, or a

hundred miles, and so deep that the sea flows in and fills up all these fissures and crevices with its own salt water, and you have some idea of the fjords of Norway.

What, then, is a fjord? You go to your dictionary, and it says, a fjord is a frith, an estuary, etc.; but, in reality, a Norwegian fjord differs from a Scotch frith as much in its features as it does in its spelling. It is a thing by itself, and must be seen to be known. It is an arm of the sea, but not made by the sea. Some huge convulsion broke the solid land, and the sea flowed in and filled the ghastly chasms. The sides are steep, rising often to 2,000 feet. They are frequently naked rock coming sheer down to the water, and so near together that they look more like hallways than like valleys. The rent parts seem to have had no time to round off or soften. Here and there a huge fragment has fallen into the green Arctic flood, and forms an island—but which in its rugged and splintered outline looks more like a black, petrified iceberg than like an island.

There is seldom a long perspective. The main fjord branches off on either side into unexpected fissures, each one more beautiful than the last, but none of them extending in straight lines; thus the prospect is always changing. Nothing can be finer than to view these inlets from the deck of a steamer, or, still better, from a rowboat. Wild and weird as they are, they are not wanting in humane touches. Here, for example, is a sunny slope, whose quiet shore is laved by the great sea, and in its lap rests a village. The white-walled, red-roofed church stands on an eminence, and points its black-painted spire towards the open sky. The one-storeyed houses are not in line, but each one stands on its own independence. A few fishing-boats are rising and falling with the gentle swell. The eider-duck, sacred in all these sea retreats, floats rather than swims unawed amid coming and going steamers. Gulls, in countless numbers, circle noisily about.

The home of the fjord is full of sunshine, or it may be fog—for this climate is fickle

beyond compare. If sunshine, it seems as if the surrounding mountains were a huge goblet into which the king of day had poured his fulness, so abundant, so prodigal is the glory—or, if fog, nothing could be more dense or more chilly. The mountains are marked in many places by snow-fields and glaciers—treeless, but not without shrubs, grass, and flowers. Silver streams fall over their precipitous sides, and from such giddy heights that they seem to come from the clouds rather than from the cliffs. Peaks (*tinds* as they call them) you can count by thousands; they lie in clusters, and stretch along the horizon in chains, till by their very number they become commonplace and small; but no sooner does your eye fall on the tiny fishing village at their base, than they rise again to their original grandeur of thousands of feet. Then you say to yourself for the hundredth time, "How small those houses are"—and on closer inspection, "How far we are from the land"—such is the purity of the atmosphere.

Something like this is a Norwegian fjord. But it is the blending of these several features of sunshine and shower; of snow and flowers; of pictured rocks and glassy waters; of waterfalls and patches of barley on some lofty ledge—nature's majesty and man's tiny works cowering before her—all this in passing panorama, through long-drawn vistas, for many days and miles, make up the fjords of Norway. They put a spell on you. You are full and yet not satisfied. You can't look any more, and yet are afraid of losing something if you don't look. You can't tear yourself away. You wish you had more soul-surface to paint those beauties on, or more soul-capacity that you might hold more of their magic.

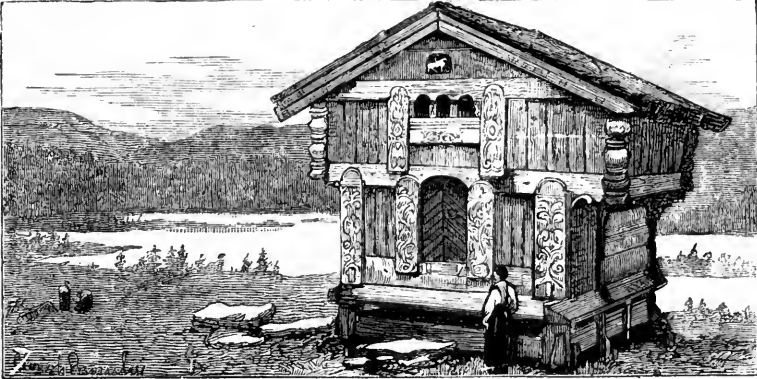
The *fos* is the daughter of the fjord, and whether the daughter or the mother is the more beautiful, would puzzle a poet to tell. Now *fos*, which is the ending of so many Norwegian local words, means a waterfall, and after threading the fjords of Norway you cease to wonder that this termination is so common, for every *fos* must be a name,

and their number is legion. The Mörkefos belongs to the Sognefjord. The water falls about 1,000 feet clear, into a magnificent amphitheatre of black excavated rock. Some tourists give it the first place among the Norwegian waterfalls; others give this honour to Skjaggedalfos, which is connected with the Hardanger fjord. A good deal depends on the season of the year, and the fulness of the falls.

These children of the mountains are born amid all conceivable surroundings. Sometimes, as in the case of the Skjaggedal, it is the offspring of a mountain lake a thousand feet above the fjord, from which, at a

single leap, it springs into all the beauty and glory of womankind. At other times it is a puling infant, born of some hidden snowfield, its long white drapery falling in many a wavy fold over the dark cliff. Sometimes they come upon you in groups, as "The Seven Sisters" in the Gejranger fjord; but whether singly or in sets, all are beautiful and no two alike.

You feel as if you must sketch them, for fear their beauty should fade, and the world be so much the poorer. I can't draw, but I couldn't keep my pencil in my pocket. I feel I must fix their charms in my memory, if not in my note-book. I said their number



was legion, but it is no greater than their variety in form, volume, and height. Sailing into those deep, dark rock crevasses, away in the distance, your eye catches a patch of light, that looks as if an illuminated cloud had hid itself in the cleft of the rocks. It is white enough to be snow, and there is snow all about, but it is too radiant, and above all too fleecy for snow. That is a fos, bursting like a camellia out of the dark

cliff. From another point of view you see water falling over the edge of a precipice, in a stream so thin that, as it wimples down the face of the rock, it is lost; it has become disembodied, and floats away the sprite of a water-face, and not the waterfall itself.

And this too is a Norwegian fos, one of the ethereal products woven of water and sunshine in the airy looms of these fjords.





LOST ON THE PAMPAS.

OVER the vast plains of South America, called by the natives the pampas, the Indian yet roams, and often breaks out into hostilities with the whites. Mounted on the most powerful and fleet horses, wherever they come their course is tracked in blood. The many conflicts which they and their forefathers have sustained with the Spanish usurpers of their country have created the bitterest feeling in the breasts of both parties, and the idea of sparing a foe is never entertained.

It is evident that to be lost on such a plain, with the prospect of meeting foes so merciless, is no desirable fate. The following account of an adventure of this kind, which happily had a peaceful termination, is interesting :—

“We were within three days’ gallop of the coast ; I was a few miles a-head of my companions, when an ostrich crossed me at some distance, and I pushed off alone after him. I had acquired some little skill in the use of the lasso, and being mounted on a horse of extraordinary speed and power, made myself sure of my prize. There is perhaps no sport in the world so intensely interesting as that in which I was engaged ; miles pass with minutes, and the sight of the chase continually in view, keeps alive an ardour which absorbs every faculty. I had made several unsuccessful casts, but still kept up the pursuit with reckless impetuosity, when my horse suddenly fell with me into a hole, and rolling over my body, bruised me severely. Fortunately, I still retained hold of the bridle, but, unable to rise, lay helpless on my back, gazing upwards upon innumerable bright and fantastic objects which seemed to fill the atmosphere. At length, when the sickness had in some measure left me, I managed to

get into the saddle, and walked my horse slowly in the direction, as I thought, of the road which I had left. I now began to reflect that, as my course had been almost at right angles to the track leading to the coast, and as I had continued great part of an hour with unabated speed in the chase, there was no possibility of my overtaking my friends, compelled as I was by the pain of my bruises to proceed at the most gentle pace possible. I felt also, from the frequent tripping of my horse, that he was well-nigh spent, and now for the first time the appalling nature of my situation burst fully on my mind.

I was alone on a trackless plain, without the power of reaching the path I had left, and certain, unless some wandering guacho should by good fortune pass me, to perish with hunger or severe thirst, which from the bruises I had received, began to parch up my frame. I swept the horizon with a glance dimmed by sickness and terror, but save a herd or two of wild cattle feeding among the deep clover, there was nothing to break the sameness of the view. A troop of naked Indian horsemen, of whose cruelties I had lately heard so much, would at that moment been welcome to my sight.

Often, as the nature of the dreadful death to which I seemed doomed shot through my heart, I struck my spurs into my horse’s sides with a convulsive movement, but the groaning of the fatigued animal, and the agony which the least acceleration in his pace created in my bruised limbs, caused me as often to return to a slow walk, and to yield myself up to despair. In a short time, the thirst which I had suffered became so intolerable, that I decided on opening a vein in the neck of my horse, in order to quench it in his blood. I knew very well that the best way to relieve my thirst, and assuage the fever which caused it, would have been to draw a little blood from my

own veins, instead of my jaded steed, but I was fearful that if fainting came on, I might bleed to death. I therefore took out the instrument, and was about dismounting in order to perform my little operation. Before doing so, however, I cast another long-ing look around me ; and to my inexpressible joy beheld a horseman gallop out from behind a large herd of wild cattle, which had for a long time concealed him. I halloed with all my might, but the feeble sound must have died along the plain before it reached him, for he kept on his course.

At last I fired one of my pistols, and I could instantly see his horse turn, and sweep towards me at a rapid pace. I had time to reload my pistol, loosen my knife in its sheath, and fix my almost sinking faculties upon the danger probably before me ; for I knew that a guacho, meeting an unprotected stranger like myself in the plains, would think nothing of cutting his throat for the sake of his bridle and spurs, besides the possibility of finding a few dollars in his purse. Fortunately, however, my fears were groundless ; the rider who had so opportunely crossed me proved to be a guacho boy of about eleven or twelve years of age. I returned my pistol to my girdle,

and uttered an ejaculation of gratitude. The little fellow came dashing up to me at full speed, crying, with evident emotion, as he checked his horse till the animal fell almost on his haunches, 'Que es esto?'—What is this? I shortly explained to him my misfortunes, and requested to be taken to his home, which I found was at a few miles distance, lying farther south than any other guacho hut. He gave me a drink of water from a cow's horn, which was slung round him, and never till my dying day shall I forget the exquisite feeling of pleasure which that delicious draught communicated to my parched frame. He then pulled some dried beef from a bag which hung at his saddle bow, and I ate a few mouthfuls to relieve the faintness which my long abstinence from food had created. Thus, having performed the duties of hospitality, the young horseman dashed away in the direction I was to accompany him, whirling his lasso above his head, and his poncho streaming like a pennon behind, then ever and anon returning to my side with an 'Alegrarse! alegrarse! vamos! vamos! senor.' Cheer up! cheer up! come on, come on, senor! In this way, after a most painful march, we arrived at his hut."

THE PARADISE OF INSECTS.



ONE but those who have travelled on the Upper Amazons can have any idea of the number and voracity of the insect torments which work their wicked will on the bodies of the unfortunates exposed to their attacks. The "sancudos," as those insects commonly known to Europeans as "mosquitoes" are called (the term mosquito being applied to a small sandfly, of which we shall speak hereafter),

form by far the most important section. In the villages, round which the forest is cleared away for some distance, the sancudos are generally pretty quiet during the day, except where darkness prevails: there they are ever busy and are a perfect plague. The triumphant note of a sancudo who has made his way under your curtains is (says a writer in *Chambers's Journal*) more annoying than even his bite; and should you have been careless in getting into bed, and been accompanied by two or three of these blood-suckers, we will defy you to sleep until you have exterminated them.

In the forest and on the river, the sancudos are always busy. Men sometimes get into the vessel's tops, and there cover themselves with sacks, notwithstanding the heat, rather than remain below exposed to their attacks. Fortunately, they cannot stand a current of air, and so, when under weigh, we were comparatively free from them; but when at anchor, they were something awful. We used to try all manner of devices to get rid of them, but without lasting effect. Creosote will keep them off; but the remedy is as bad as the disease. Whitewash will drive them away; but when dry, its power ceases; and the only thing to do is either to cover all exposed parts of the body with black pigment *à la mode Indienne*, or else, as the Yankees say, to "grin and bear it."

Scarcely less troublesome than the sancudos are the mosquitoes, or sandflies, although they have the negative merit of biting only by day. They are minute creatures, not much larger than a pin's head; they prefer the backs of the hands to any other spot for their attacks. But, unlike the sancudo, who, when undisturbed, gorges himself until unable to fly, and becomes an easy prey to your avenging finger, the mosquito never seems to take too much to prevent his easy escape on the slightest appearance of danger, being evidently just as wide awake when full as when empty.

Everywhere in long grass lurks the "moquim," a little red insect, so small as to be almost imperceptible, but which fastens on the legs, causing the most intolerable itching. The plan we adopted was, on our return from shooting-excursions, to wash all the lower parts of the body with "cachaça" (cane spirit); and this used to answer admirably.

There is a fly which burrows in the skin and deposits an egg, both in human beings and animals. This produces a maggot, similar in shape to that of the common blowfly, but much larger, probably analogous to the Guinea-worm.

Then there are "chigos," which burrow mostly in the soles of the feet. You feel an intense itching, and on examination find a

little thing like a pea just under the epidermis; this is the bag containing the young chigos, which must be carefully picked out with the point of a knife, and the cavity left filled with tobacco ash.

Huge spiders abound, whose very appearance inspires a wholesome dread of a nearer acquaintance, but which are harmless enough if let alone. In fact, on board our steamers, almost every cabin was tenanted by one large spider, whose presence was tolerated on account of his being a deadly foe to cockroaches, which abominable creatures used to swarm on board. Sometimes he would not be visible for a fortnight or more at a time; but he would leave tokens that he was "all there," in the shape of the empty husks of cockroaches, from which he had carefully abstracted the interior. These spiders have the power of springing upon their prey from a distance, and some of them are so large and powerful as to kill and devour small birds.

In passing through the narrow forest paths, it is necessary to be on the look-out for the wood-ticks, which are very difficult to get rid of if once firmly attached; also for the huge black ants, an inch and a half in length, with stings like a hornet's; and the saüba ant, without sting, but armed with nippers like a pair of surgical bone-forceps, which are running about everywhere. One may sometimes chance upon a column of the dreaded "fire-ants," marching in regular military order; and if you do, the only thing is to bolt at once, for neither man nor beast may withstand the fire-ant and live. When at length you stop to rest, take care to examine your camping-ground, lest you find that centipede or scorpion may fancy the same locality.

Frequently on board our steamer, both centipedes and scorpions would be killed, introduced, no doubt, in the wood used for fuel. One day, as we were watching the hands taking wood from canoes alongside, from one of the logs pitched on board was dislodged a scorpion, which fell on the naked left arm of a man keeping tally at the gangway. Astonished by his sudden flight

through the air, the animal remained perfectly still. The man never moved a muscle, and quietly raising his right hand, flipped it away with his fingers and thumb. It was very neatly and coolly done; and he thus escaped a sting, which he no doubt would have received had he tried to brush it hastily away.

Ants are a horrid plague, both afloat and ashore. It is amusing to see a host of small ants carrying off the body of a defunct cockroach, giving one the idea of mice departing with a dead elephant. But they are a great nuisance. They will not, however, walk over cotton wool; and anything placed on or enclosed by it is safe from them. The saüba ants are, we think, the greatest depredators of any. They form regular communities, where each individual, workers, soldiers, etc., has his own especial line of duty, and are great excavators.

Mr. Bates, in his work "The Naturalist on

the Amazon," has given a very capital description of these ants; but he has omitted to mention the extremely pungent aromatic smell they, or at least their nests, possess. These ants are extremely destructive to cacao plantations, stripping the trees of their leaves; they will carry away a large basket of grain in a single night, should any of them come across it. A migration takes place sometimes from the parent stock, some of the ants becoming winged, and flying off. Few, however, escape the Indians, who are always on the watch for these migrations, and by whom these winged ants are considered rather a *bonne bouche*. They catch and stuff them into bottles, occasionally lightening the work by pulling the wings off one and devouring him alive. Those ants which escape the Indians fall a prey to flocks of hawks and other birds, which make their appearance as soon as ever a migration commences.

THE CATHEDRAL OF NOTRE DAME.



LOOKING up to the front of the cathedral from the Place du Parvis, on the venerable Isle St. Louis, with "God's Hotel," the great hospital, on one hand, and the vast limestone mansions of new Paris on the other, the effect is grand. The sunlight breaks into brilliant tracery of gleams over the almost countless statues ranged above the huge doors, and a roseate glow is reflected from the rosace in the centre of the façade. Firmly founded as the everlasting hills, its foundation-stones lying upon the very river bed of the Seine, and on the ruins of a pagan temple, it is one of the most impressive monuments in Europe. Victor Hugo calls it the "book in stone," and,

indeed, it is at once an epic and a romance. The sturdy majesty of its form—that of the Latin cross—and the superb symmetry of its gigantic proportions, give it an epic force; while the wonderfully imaginative decorations of its towers and balconies *en haut*, the vast and dizzy heights, the whelming abysses, the gorgeous outlook, and the fine flow of fancy, even in the smallest detail, give it a romantic character. The wealth of legend, too, lavished upon it by a thousand artists, poets, and dreamers, has made it stand out weird among churches. It has infinite transition within its limits for him who wanders aright in its galleries. The great recess at the altar's rear, where the red and black-robed priests are chanting continuous psalms, seems like a bit of life cut out of the Middle Ages. There is only one thing to destroy the illusion, and

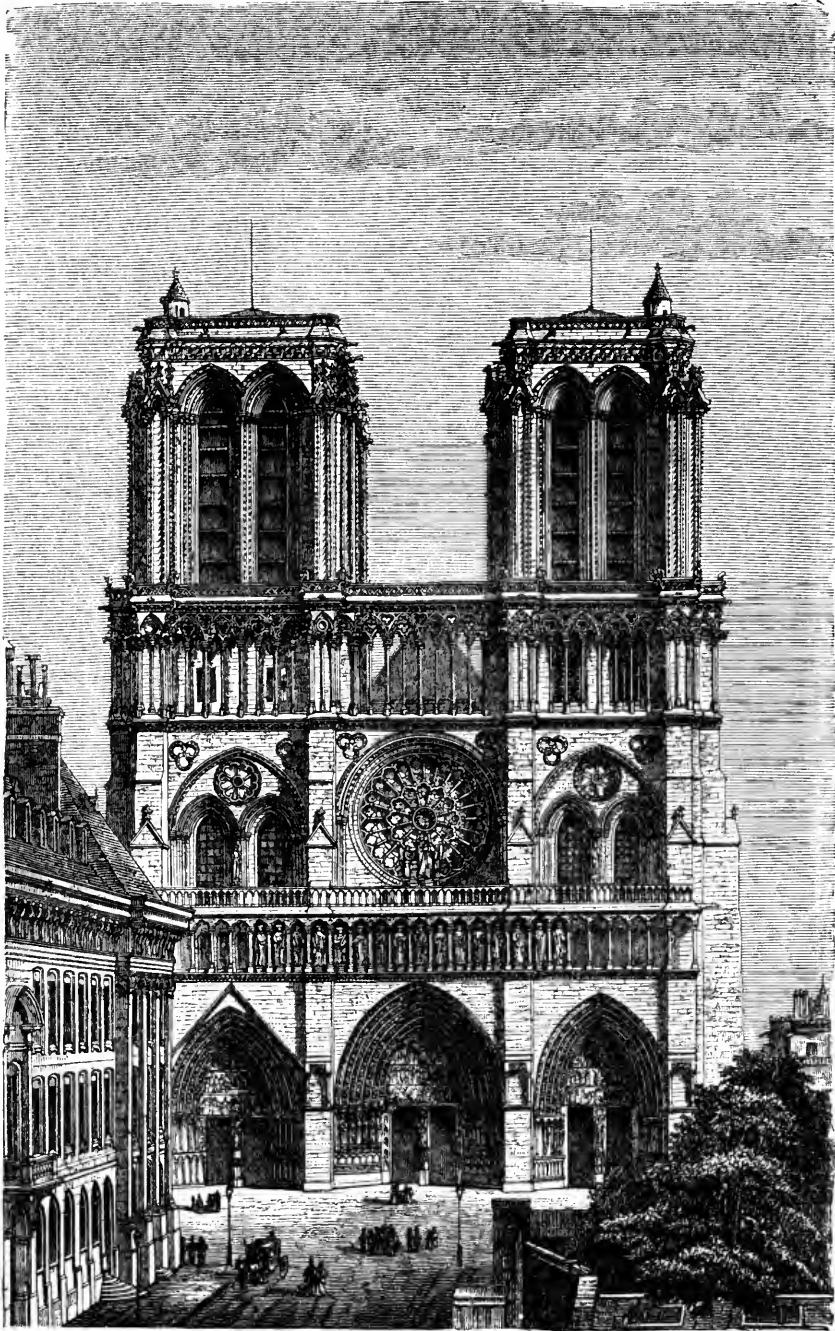
that is the little group of white-stoled boys who swing the censers before the inner altar, and who now and then sing in childish voices. There is no mistaking these urchins; they are all the irreverent, incredulous, sceptical *gamins* of modern Paris, utterly devoid of any of the serious beliefs and superstitions which youths of the *moyen âge* possess. In another portion of the cathedral you shall see a group of market women, bare-footed, coarse-haired, grimy-armed, savoury of the fish-barrel and the potato-sack, kneeling reverently before little straw-bottomed chairs, and listening with tears in their tired eyes to the pure voices of the women singing in some hidden gallery. Before the entrance to the grand aisle sits the withered old man who holds the *toupe* or brush from which the holy water is sprinkled upon the worshippers. He sits there, under the sombre shadow of the great pillar, all day long. Never a gleam of sunlight touches him; never a soul salutes him, every one is too busy with his or her conscience, and he sprinkles, sprinkles, sprinkles, dreamily afar off, as if he had eaten of the lotus. In the lateral chapels, many of which are extremely rich in decoration and design, elegantly-dressed women kneel for hours together, praying for the remission of sins for which they fancy they are easily pardoned.

Ah! here is a dingy and grimy old door leading up great stone steps to the cathedral roof, where the lover of the picturesque may wander for hours without ever wearying. It is a long way up, and the steps are worn and old; millions of feet have made great creases in them. Suddenly you stagger out upon a wide platform, and Paris, with its curving Seine,—Paris, with its hundred palaces, its giant avenues, its vast towers, its glorious parks, lies spread before you. You feel as if breathing a purer air. You are of the world, yet separated from it. You are elated, jubilant, exalted. The hum and din of the great capital smites gently upon your ears. A strong thrill of excitement runs through you as you press to the outer railing, and look down from the dizzy

height into the place below. Are those ants crawling on their ant-hill, or are they really men in the market place? As you get tired and seek a spot to repose, the old woman who has her home in a little house in the belfry invites you to a place on a rustic bench.

Notre Dame has had its days of splendour and consummate glories. Since its first stone was laid in the tenth century, it has seen riots, murders, vast mobs of thieves, iconoclasts; and kings have come there to be crowned and married. The old cathedral is essentially a Parisian product: its Gothic proportions were hewn out of the limestone quarries in and around the city, and for many hundreds of years architects wrought into it their hopes, their fears, their aspirations. There were long epochs between its beginning and its completion, the first stone was laid in 1163; the choir was finished in 1185; the triforium of the nave in 1215; the chapels of the apsis were built in 1296; and the church was very frequently altered and mutilated during the twelfth and thirteenth centuries. When the restoration began, in 1845, it was feared that much of the antique beauty of the venerable structure would be lost; but the French of to-day, with a praiseworthy care for detail, have copied in its exactest outline every stone and ornament of the edifice, and it stands rejuvenated in large degree.

There are few grander sights than that of the old cathedral, filled with twenty thousand worshippers, kneeling mutely in the sombre shadow of the great pillars, while from the organ comes thunderous outbursts of music, and from the concealed galleries the pure voices of chanting women. Napoleon III. was married here. It seems almost like yesterday; and only a score of months ago, the Commune sternly demanded the silver images of the great altars, that they might be melted into money with which to purchase bread for "the armies of Paris." The Commune made an effort also to destroy the venerable cathedral by fire, but it was frustrated, and the florid spires and towers still kiss the crystal sky.



XX. B.B. BENHAMOND.

CATHEDRAL OF NOTRE DAME, PARIS



THE PITCH LAKE IN TRINIDAD.

AMONGST the other natural wonders of the island of Trinidad is the far-famed lake of pitch, specimens of which are sometimes brought to Europe. The following interesting account of the lake is condensed from the narrative of a gentleman who visited it from the town of San Fernando.

To get to the lake it was necessary to sail about ten miles on the Gulf of Paria. The course lay along the shores of the district of South Naparima, with cane cultivation coming down nearly to the water's edge, and the planters' houses placed so as to command good views of the sea; then past the swamp called, *par excellence*, the Lagoon. This lagoon has a frontage to the sea of between three and four miles, and extends a great way into the interior. It is a fertile source of fevers and agues to the estates adjoining, especially those to leeward. Then came some more miles of bush, and then our destination, the beach and village of La Brea (signifying pitch).

Nothing could be more appropriate than the name; for it is pitch here, there, everywhere. It is the shore, and is the bed of the sea as far as you can trace it; it is the street; in fact, it is the surface of all around, forming the floors of the houses; and it is under the vegetation, that, with tropical luxuriance, is growing around. The appearance is certainly sterile, while the heat reflected from the sun's rays is stifling, rendering residence by a white man impossible.

The road proceeds from the shores nearly in a straight line almost due south, with a gentle ascent to the borders of the lake, about a mile distant. It is wholly covered with pitch, quite hard, but presenting the appearance of being in motion,

flowing slowly to the sea. It shows as if wave after wave was coming on, each one having sufficient consistency to preserve its crest, as if the ripples on a level sea shore had been suddenly arrested in their onward flow, and become solidified.

The pitch is quite level with the edge of the basin, and quite hard on the top, the surface presenting the same appearance that a number of balls of rising dough, placed on a table close together, would do. These are of sizes varying from ten to fifty feet in diameter, and the spaces between are filled with surface water. The lake is about half a mile across, in both directions, and nearly round; its depth no one can tell.

It was our intention to proceed toward the middle of the lake; and after we had spent some time on the border, surveying the wild scene around us, we began to put our intention into effect. The sides of the hummocks were slippery and very steep, but we pursued our way, without much fear of catching cold—for the sun was hot enough to dry our clothes in quick time—till we arrived near the middle, where, on a larger flow of pitch than any we had crossed, some guava bushes afforded shelter from the sun's rays, and here we halted. The stillness was very marked; not a sign of animal life but what came from our own party, while the black-brownish hue of the surface of the pitch added to the monotony of all around. Still, here the guava bushes were growing, without any visible soil to nourish them, although probably a cropping up of soil in the lake gave them place to strike root in. The water in the lake is so slightly tinged with the taste of pitch as to be drinkable, and there are plenty of places where good bathing can be had to those so inclined.

Hitherto the pitch over which we had passed was quite hard; but after we had

rested, on going farther on to the lake, we found it more plastic. If you stood still for a few minutes, you sunk the depth of the soles of your shoes; and the bleached head and horns of an ox told us of one death on its sticky surface. Slight ebullitions were going on in several places. You could observe the surface bulging up till about the size of a pigeon's egg, when it would burst at the end, with a rush of air, very often accompanied by a squirt of liquid mud, which would be propelled from two to six inches distance. This was slightly warmer than the surrounding air or water, and had a slightly gaseous smell. Sometimes these ebullitions are in much greater activity than when we saw them, but still, so far as we could learn, were never observable from the borders of the lake; and, having been warned not to go too far on, as we might get embedded, we turned our steps shoreward.

The pitch could be used for many purposes; but the high cost of labour hinders many plans from being profitably carried out. Admiral Dundonald, when on the West Indian Station, was several times at the lake, and took on board his ships quantities of the pitch, with which he experimented as to its power of raising steam; and there was in Port of Spain a

manufactory of tiles for paving, and some other things. Many of the under floors of the merchants' stores in the island are laid with it, boiled together with sand, as are also the pavements under the balconies; but it does not do for the streets, on account of the great heat reflected from it. During many years, large shipments were made to London, and there was also a trial made to extract oil from it, which was given up as not being sufficiently remunerative.

It is not improbable that a great part of the substratum of the southern part of Trinidad is composed of pitch, and that this lake is its natural outlet. On the east side of San Fernando hill, which is farthest from the lake, and distant nine or ten miles, the pitch comes cropping out on the surface; and farther to the eastward there are indications of it again; while away in the woods, between Savannah Grandi and Moruga, there are the hot mud springs, that emit a slime similar to that described as coming from the bubbles on the surface of the Pitch Lake. It would certainly be interesting to know if there really be a communication between these springs and the lake, the heavier pitch finding its way to the basin at La Brea, the lighter mud being thrown out by the internal forces, whatever these are.

ON THE UPPER MISSOURI RIVER.



A STEAMBOAT trip from St. Louis to Fort Benton, a river distance of 3,000 miles, for the most part through a magnificent region, is one that well repays the tourist. Pure clear air, limitless prairies, mountain gorges, lovely valleys, lofty cliffs, and wonderful buttes, combine to give indescribable charm to the ever-shifting panorama of the shore. The

first 1000 miles of the way, lying between St. Louis and Sioux City, is enlivened by the oft-recurrence of those distinguishing marks of an advanced civilization, thriving and beautiful cities.

Twenty miles from St. Louis the Missouri pours its tawny-hued waters into the fairer stream of the Mississippi. The line of the meeting of the waters is as plainly distinguished as if marked off with stake and chain. The peculiar turgidity of the Missouri's waters is only noticeable below

the mouth of the Yellowstone, which river our Western boatmen esteem the true Father of Waters, or, as they phrase it, "The right reverend old Mississipp."

Washing through the peculiar strata of the region of the Black Hills, the Yellowstone imparts its own horrible hue and consistency to both the Missouri and the Mississippi rivers.

About the tenth day out from St. Louis the ordinary Missouri River steamboat comes in sight of the mound on the top of a bluff not far from the site of Omaha Mission, where, tradition tells us, is buried, astride his favourite horse, Black Bird, the chief of the Omahas.

Between this point, perhaps a day's sail this side of Sioux City, and Yankton Agency, the bluffs of the Missouri, circling about green and fertile valleys, arise in beauty and grandeur that are but suggestive of the wilder and loftier magnificence of the scenery yet to be disclosed to view. From Fort Randall to the mouth of the Cheyenne River navigation is tedious on account of sand-bars. The consolation is that while the boat is aground, or laid up with broken rudder, or like mishap, the tourist can hunt, *ad libitum*, or trade with the Indians whose camps may chance to be near by. Elk and antelopes abound along the shores.

Some miles above the mouth of Grand River is the famous Chaulk Bluff. Below this bluff is spread out a valley of entrancing beauty. At this point the distance across the country to St. Paul, Minnesota, is about 200 miles. Fort Rice, the mouth of the Beaver River, and some horrible snags and bars, are the minor points of interest in this locality. The major point is the scenery. The timber, cottonwood, and scrub oak, or ironwood, as the frontiersman calls it, and speaks of its worthlessness for firing purposes in the superlative terms, "so poor that even a steamboat can't burn it," if not useful, is certainly ornamental and full of suggestiveness to the imaginative tourist. Think of a prairie stretching away 100 or 150 miles, your usual horizon in the

pure atmosphere being fifteen miles. Dot this verdant, flowery land at intervals of five or six miles with clumps of tall, slender cottonwoods, top-branching like the palm, and late in May, when the long grass waves in billowy swells far as the eye can reach, and the shadows of the cottonwood groves are thrown upon the emerald sea, you have a glowing picture of a tropic scene, of seagirt islets crowned with orient palms.

Passing Fort Rice, Painted Woods, old Fort Clarke, Fort Berthold, with picturesque views presenting themselves in quick succession upon both shores, the tourist is often treated to sights of herds of buffalo, cows with their calves trotting complacently along the river bank. Elk, antelopes, wolves, and foxes visit the river singly, in pairs, and in herds. Many of the smaller animals fall victims to the tourist's rifle or pistol. Disembowelled, dressed with a solution of arsenical soap, of which all mountain boats carry a good supply, and stuffed with prairie grass, specimens of the trip often find their way to friends at home, souvenirs of the delightful journey. At the various woodyards the lonely choppers hail with joy the arrival of every boat; letters and papers are given out, wood and perhaps milk and eggs received on board. Passing White Earth River, flowing through its chalky banks, from whose soil the Indians procure a favourite cosmetic, the river enters the Bad Lands of Dakota and Montana. This is the highest northern point of the Missouri. The river from this place runs due west and southwest.

Fort Union, the finest fort on the river, Fort Kipp, Fort McKenzie left behind, Milk River, so called from the peculiar milky tinge of its waters, is the next object of interest before coming to Dry Fork. This is the dry bed of a river that once emptied its waters into the Missouri here. Trappers say that at a distance of about 100 miles up the bed, water is yet flowing, and that it disappears at a certain point, as if absorbed by the earth. Probably by

some underground channel it is drawn away into the Yellowstone. Passing Fort Cope-land, the tourist is delighted with the grandeur and magnificence of the scenery. Even upon the sterile soil of the Bad Lands objects of intense interest are seen. Lofty buttes, round and square, resembling massive old castles, startle the beholder. They are but the beginnings of surprises. Passing Grand Island, if wind and water and steam are all favourable, the little stern-wheeler slips over the two great bugbears of the trip, Cow Island and Bird's Rapids, and is at once amid the mountain gorges. The stream, which at the mouth of White Earth River was exceeding wide, is here compressed into a channel in some places but a hundred feet in width, and part of the way flowing between bluffs that rise from the water's edge 1,000 feet in height.

No waters are clearer or colder, no currents stronger or more rapid, than these of the Missouri among the gorges of the Little Rocky Mountains. Wonderful ferruginous petrifications and rare and beautiful fossils are found here in abundance. No description can do justice to the marvellous charm of the scenery among the mountains. Can there be such sunsets as glorify the valley of the Judith where the Judith River empties its icy torrent into the Missouri, crystal clear and shining like silver itself, while the lovely Judith valley, opening out from the gorge, stretches away into the enchanted distance, a vision beautiful to satisfaction or even repletion?

Beyond Drowned Man's Rapids the

scenery is majestic to sublimity. Near Pablos Rapids is seen a curious wall, crossing the valley from hill to hill, and having the appearance of a piece of unfinished masonry. Mountain spurs arise in grotesque shapes and likenesses that have suggested the names by which they are known: the Sugar-loaf, the Chimney-tops, the Old Woman in Bonnet and Shawl, the Castle, the Cathedral Spires, and the Citadel, an immense peak, that seems to rise directly out of the bed of the river. Over these loftiest crags the big-horned mountain goats clamber and leap. These goats have great horns curving spirally backward, and weighing from fifty to sixty pounds. Beyond the Bad Lands of Dakota, vegetation is luxuriant.

Fort Benton, 900 miles above Fort Union, is the usual terminus of mountain-boat travel. This fort, like most of the others, was built with permission of the Government, by Pierre Chouteau, a St.-Louisian, and one of the oldest Indian traders of the West, and his son, Chas. P. Chouteau. It is a plain, square structure, built of adobe walls twenty feet high and of great thickness, enclosing store-houses, dwellings, etc., etc., and covering an acre or two of ground. A blockhouse is at each corner. A few years ago these forts and trading-posts passed into the hands of the National Government.

The descent of the Missouri, like that other descent, is *facilis*. From thirty-five to sixty days are consumed in going up the stream whose descent is easily accomplished in eighteen.



HINDOO PILGRIMAGES.



It has been estimated that every day throughout the year there are not fewer than half a million of our fellow-subjects in India on the move as pilgrims from shrine to shrine and fair to fair. India is studded with sanctuaries, to which, over distances greater than from London to Moscow, or from Archangel to Rome, thousands of human beings are seen painfully toiling. There are holy spots, varying in size from a grove or a hill to a great city, which are sacred at all seasons, and are ever crowded with worshippers; and there are shrines devoted to one particular deity, and most attractive only at the special season of his festival. In Southern and Western India there are vast gatherings, and almost every subdivision of a district, or little county, has its local shrines, to which the sick and the conscience-stricken resort when they cannot afford to purchase the greater merit of a journey to the holy city of Benares, or to Juggernaut at Pooree. All these are purely idolatrous in their origin and objects, although commerce is attracted to them chiefly to supply the wants of the pilgrims. Like many of our own people, the middle class of Hindoos take advantage of the local festival to lay in the stock of family clothing for the year.

At Allahabad the fair lasts for a month. The gathering is held on the sandy spot left dry by the receding waters at the junction of the Ganges and the Jumna. Both are sacred rivers, but there is a third more sacred than these, the Sereswuttee, which unites with both at this point. True, it cannot be seen, but the pilgrim believes that it flows underground to this spot. Hence the merit of bathing in all three streams may be at once obtained here. There are many such sacred confluences

of rivers in India, but this is the holiest of all. It is the more attractive because, especially since the opening of the railway, devotees may with ease accomplish a pilgrimage to Gya, Benares, and Allahabad, in the same month of January.

The sole object of the pilgrim is to bathe at the junction of the three streams. This cannot be done except by those who go out in a boat to the supposed spot. In former times, here, as at Saugor Island, at the mouth of the Hooghly, many devotees sacrificed themselves by drowning with three pots of water tied to their persons. Even yet accidents occur on the rush of crowds to the brink at the auspicious moment, the lunar period, when expiation is most certain and thorough.

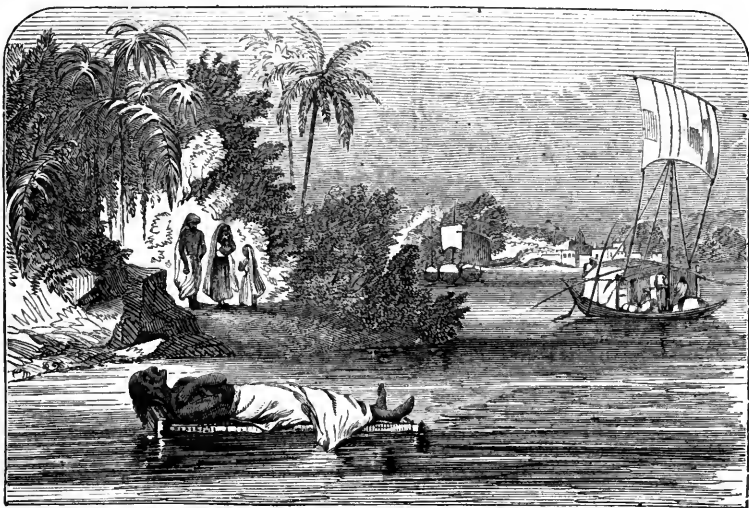
The sight is at once saddening and repulsive. The whole extensive area from the wall of the Fort to the confluence, and to either river, is enveloped in a cloud of sandy dust. Throughout the day crowds continue to arrive, mostly on foot. But now a Rajah comes, seated in silver howdah on a gorgeously caparisoned elephant, and attended by a crowd of ragged followers, with tomtoms and music shrilly discordant. Eager to accomplish the vow, the newcomers push on, hurrying timid women with them, past the tent where missionaries preach from sunrise to sunset, past the booths and shows and jugglers. All these strange and novel sights they will duly enjoy when the conscience has been cleansed, and merit enough has been laid up to atone for a long period of sin, and secure a happy transmigration in the next birth.

As they press through the lines of devotees the crowd becomes more and more dense, and the police have to interfere to keep them from being jostled into the water. All along the Prayag and at the most holy spots the Brahmins ply their busy trade,

inviting customers, directing penitents, guiding shrieking women and sensual men into the cold waters. Each pilgrim, as he arrives, squats as near the bank as he may, that every hair on his body may be shaved off and fall into the stream. As he joyously undergoes the operation he hears a hundred priests shouting aloud that every hair thus sacrificed secures for him a million years of happiness hereafter. He then bathes, and next day he performs that rite which lies at the root of the whole family life and religious belief of the Hindoo, the obsequies of his forefathers. The priests receive their fees, and the washed devotee is now ready to

enjoy the attractions of the fair, and plan his route homeward or to the next shrine.

Even more renowned than the Mēla, or Fair of Allahabad, is that of Hurdwar, the gate of Vishnool, under his name of Haree. Here the Ganges is dammed up into a clear, limpid stream of considerable depth, and with a swift current, rendering the bathing of crowds dangerous. The most sacred spot for ablution is at the base of a steep hill approached by narrow steps at the end of a ravine. This place was not unfrequently the scene of a dreadful tragedy, for only four abreast could bathe at a time. In 1819, for instance, when the crowd was



SCENE ON THE GANGES.

unusually large, the pilgrims so pressed on in the narrow street leading to the ghaut that the sepoys stationed to keep order could not resist them, and four hundred and thirty persons, including several of the sepoys themselves, were crushed to death. Men and women rush into the water together, absorbed only in the desire to wash away the sins of the past and lay up merit for the future. When the writer visited the spot the festival had not begun; but there were hundreds of devotees of the richer sort who were being leisurely dipped in the ice-cold stream, each by a couple of

Brahmins, whom they liberally paid. The poorer bathers pay from twopence to sixpence each. The season of the festival falls about April, when the sun enters Aries. But every twelfth year, when Jupiter is in Aquarius at that time, the merit of bathing becomes so enormously increased that thousands crowd from all parts of the peninsula to the favoured spot.

No one who was in Northern India at the time will forget the occurrence of this peculiarly sacred fair in April, 1867. The English authorities were well prepared for it, having made sanitary and encamping

arrangements for no fewer than three millions of people. Boats, chains, and road-way railings for no fewer than ten bridges over a rapid stream, had to be collected. For miles around the jungle had to be cleared, the scrub forest rooted out, and the three Brahminical towns of Hurdwar, Kunkul, and Joalapoor cleansed. Roads were lined out and constructed to, and all through, the vast encampment. An army of police had to be organized for novel duties. Hospitals were erected, and, above

all, most extensive sanitary conveniences were prepared. And all this was so done in a month that a population nearly as large as that of London found an improvised city prepared for them, and in spite of their timidity and ignorance they were enabled to settle down for the serious business of worship in peace and order. The whole formed a triumph of organization such as, indeed, is the general rule in India, whether in peace or war, its finances always excepted.



A VISIT TO THE ALHAMBRA.

ON the crest of two hills, just above the city, stands the Alhambra. The approach to it is through avenues of elm-trees, planted here by the Duke of Wellington. They have thriven wonderfully, and though inferior in size to the forest-giants of our own parks, they afford a most delicious shade by their dense foliage.

Leaving our posada, we traverse the renowned square of the Vivarrambla, once the scene of Moorish jousts and tournaments, now a crowded market-place. Crossing an open place in front of the palace of the Captain-general, we ascend a confined and winding street, the name of which reminds us of the chivalric days of Granada. It is called the Street of the Gomeres, from a Moorish family famous in chronicle and song. This street leads up to a massive gateway of Grecian architecture, built by Charles V., forming the entrance to the domains of the Alhambra.

We now find ourselves in a deep narrow ravine, with beautiful groves, with a steep avenue, and various footpaths winding through it, bordered with stone seats and ornamented with fountains. To our left, we behold the towers of the Alhambra above us; to our right, on the opposite side of the ravine, we are equally dominated by

rival towers on a rocky eminence. These are the Torres Vermejos, or Vermilion Towers, so called from their ruddy hue. No one knows their origin. They are of a date much anterior to the Alhambra: some suppose them to have been built by the Romans; others, by a wandering colony of Phœnicians. Ascending the steep and shady avenue, we arrive at the foot of a huge square Moorish tower, forming a kind of barbican, through which passed the main entrance to the fortress. This portal is called the Gate of Justice, from the tribunal held within its porch, during the Moslem domination, for the immediate trial of petty causes: a custom common to the Oriental nations, and occasionally alluded to in the sacred Scriptures.

The great vestibule, or porch of the gate, is formed by an immense Arabian arch, of the horseshoe form, which springs to half the height of the tower. On the keystone of this arch is engraven a gigantic hand. Within the vestibule, on the keystone of the portal, is sculptured, in like manner, a gigantic key. Those who pretend to some knowledge of Mahometan symbols, affirm that the hand is the emblem of doctrine, and the key of faith; the latter, they add, was emblazoned on the standard of the Moslems when they subdued Andalusia, in opposition to the Christian emblem of the cross.

It was a tradition handed down from the oldest inhabitants, that the hand and key were magical devices on which the fate of the Alhambra depended. The Moorish king who built it was a great magician, or, as some believed, had sold himself to the devil, and had laid the whole fortress under a magic spell. By this means it had remained standing for several hundred years, in defiance of storms and earthquakes, while almost all other buildings of the Moors had fallen to ruin, and disappeared. This spell, the tradition went on to say, would last until the hand on the outer arch should reach down and grasp the key, when the whole pile would tumble to pieces, and all the treasures buried beneath it by the Moors would be revealed.

Over the inner arch is a sculptured key, in which some see the Oriental symbol of power (Isa. xxii. 22), and others the key of David (Rev. xiii. 7). Others hold that it is allusive to "the power of the keys" by which the prophet opened the gates of heaven and hell. The key, however, was a symbolical sign among the Sûfis denoting knowledge, "the key by which Allah opens the heart of true believers." It occurs over many Andalusian castles, especially those built after the arrival of the Almohades, a domineering religious sect, who bore this particular badge on their banners.

Soon after passing the gate we come to the splendid pile commenced by Charles V., intended, it is said, to eclipse the residence of the Moslem kings. With all its grandeur and architectural merit, it appears like an arrogant intrusion; and passing by it, we enter a simple, unostentatious portal, opening into the interior of the Moorish palace.

The transition is almost magical: it seems as if we were at once transported into other times, and another realm, and were treading the scenes of Arabian story. We find ourselves in a great court, paved with white marble, and decorated at each end with light Moorish peristyles: it is called the Court of the Alberca. In the centre is an immense basin, or fishpond, a

hundred and thirty feet in length by thirty in breadth, stocked with gold fish, and bordered by hedges of roses. At the upper end of this court rises the great Tower of Comares.

From the lower end we pass through a Moorish archway into the renowned Court of Lions. There is no part of the edifice that gives a more complete idea of its original beauty and magnificence than this; for none has suffered so little from the ravages of time. In the centre stands the fountain, famous in song and story. The alabaster basins still shed their diamond drops; and the twelve lions, which support them, cast forth their crystal streams as in the days of Boabdil. The court is laid out in flower-beds, and surrounded by light Arabian arcades of open filagree work, supported by slender pillars of white marble. The architecture, like that of all the other parts of the palace, is characterized by elegance rather than grandeur; bespeaking a delicate and graceful taste, and a disposition to indolent enjoyment. When one looks upon the fairy tracery of the peristyles, and the apparently fragile fretwork of the walls, it is difficult to believe that so much has survived the wear and tear of centuries, the shocks of earthquakes, and the violence of war: it is almost sufficient to excuse the popular tradition, that the whole is protected by a magic charm.

In a recess there stands an immense vase enamelled in blue, white, and gold, about which various traditions cling. The peasantry regard it with mysterious awe; for it, like most other things in the Alhambra, has some connection with magic. It is said to be one of two which were filled with gold dust, and conveyed hither from Damascus, or Egypt, or Morocco—a Spanish peasant's geography is not very precise—to defray the cost of building the palace.

On the opposite side of the Court of Lions is the Hall of the Abencerrages, so called from the gallant cavaliers of that illustrious line who were here perfidiously massacred. There are some who doubt the whole truth of this story; but our at-

tendant pointed out the very wicket of the portal through which they are said to have been introduced, one by one, and the white marble fountain in the centre of the hall, where they were beheaded. He showed us, also, certain broad ruddy stains in the pavement, traces of their blood, which, according to popular belief, can never be effaced. Finding we listened to him with easy faith, he added, that there was often heard at night, in the Court of Lions, a low, confused sound, resembling the murmuring of a multitude; with now and then a faint tinkling, like the distant clank of chains. These noises are probably produced by the bubbling currents and tinkling falls of water, conducted under the pavement, through pipes and channels, to supply the fountains; but, according to the legend, they are made by the spirits of the murdered Abencerrages, who nightly haunt the scene of their suffering, and invoke the vengeance of heaven on their destroyer.

From the Court of Lions we retrace our steps through the Court of the Alberca, or Great Fishpool; crossing which, we proceed to the Tower of Comares, so called from the name of the Arabian architect. It is of massive strength and lofty height, domineering over the rest of the edifice, and overhanging the steep hill-side, which descends abruptly to the banks of the Darro. A Moorish archway admits us into a vast and lofty hall, which occupies the interior of the tower, and was the grand audience-chamber of the Moslem monarchs, thence called the Hall of Ambassadors. It still bears the traces of past magnificence. The walls are richly stuccoed, and decorated with arabesques; the vaulted ceiling

of cedar-wood, almost lost in obscurity, from its height, still gleams with rich gilding, and the brilliant tints of the Arabian pencil. On three sides of the saloon are deep windows cut through the immense thickness of the walls, the balconies of which look down upon the verdant valley of the Darro, the streets and convents of the Albaycin, and command a prospect of the distant Vega.

On the outer wall of the Alhambra, overhanging the narrow glen, with its thickets of fig-trees, pomegranates, and myrtles, which divides it from the General-liffe, is a tower of great beauty though seldom visited. It is called *La Torre de las Infantas*, the Tower of the Princesses, from having been, according to tradition, the residence of the daughters of the Moorish kings. The interior is equal for beauty of architecture and delicacy of ornament to any part of the palace. The elegance of the central hall, with its marble fountain, its lofty arches, and richly fretted dome, accord with the story of its having been the abode of royal beauty.

An abundant supply of water, brought from the mountains by old Moorish aqueducts, circulates throughout the palace, supplying its baths and fishpools, sparkling in jets within its halls, or murmuring in channels along the marble pavements. When it has paid its tribute to the royal pile, and visited its gardens and parterres, it flows down the long avenue leading to the city, tinkling in rills, gushing in fountains, and maintaining a perpetual verdure in those groves that embower and beautify more than its artificial embellishments, the hill of the Alhambra.



IRON INDUSTRY ON THE MEUSE.



EVERY one must have heard of the great iron foundries at Seraing, in Belgium, and of John Cockerill, their English founder. Even indifferent tourists can hardly have hurried through the Low Countries without becoming familiar with his famous name. One of the great shipbuilding yards in Antwerp is the property of the company that is called after him. He has his statue at Brussels. He stands sponsor to a superb quay at Liège; and as for Seraing, which lies six miles up the Meuse, it is his own city. There, too, he stands, in bronze, upon a pedestal, supported by four stalwart figures of workmen bearing the appropriate implements of their several crafts. The main street is the Rue Cockerill; there is a Place Cockerill and a Quai Cockerill; there are Cafés Cockerill and Restaurants Cockerill; but if you seek the man's real monument you must look around you and above you. All those countless chimneys in brick and iron are smoking away appropriate incense to his memory. It was he who laid the foundations of those long streets of roomy dwellings, and filled them, as well as the older quarters of the town, with a contented and thriving population. The amateur admirer of the simple beauties of nature may be sorry he should have spoilt one of the prettiest reaches in a picturesque river, but *enfin*, as the French say, what is to happen will happen.

For many centuries the Bishopric of Liège had gone in for manufactures in metals in a modest way, and Cockerill was the man who was destined to give them the development that was the inevitable result of the revolution wrought by steam. Small swift steamers, named Seraing or Meuse, and numbered 1, 2, 3, etc., ply every 20

minutes from the *quais* of Liège to the gates of the Cockerill works. The river banks are scarcely so bold as higher up or immediately below, but they are very attractive, and rich in every sense. Setting the smoke aside, you are impressed by the chilly grey tints and tones that predominate everywhere. The cliffs are grey, and so is the soil; the stones paving the concave causeways, which are strewn with coal and slag dust, are grey, of course; the quaint old villages, which have been surprised by the rush of modern enterprise that threatens to swamp them, look exactly as if they had been quarried out of lava beds. The dense atmosphere thickens as you come near Seraing. Turning a bend of the river you distinguish a straggling forest of chimneys through the heavy wreaths of rolling smoke, and backing them all up is a line of precipices steeper than any you have seen as yet. The phenomenon of these precipices is the stranger, that, hitherto, on that side of the stream there has been a stretch of flat lying between the hills and the water. It is only on a nearer view you perceive that the chain of cliffs to your left is of comparatively recent formation. In fact, they are the refuse which has been gradually accumulating since Cockerill first made a beginning of his operations on a comparatively humble scale.

That occurred fifty-seven years ago. Although born in Lancashire, Cockerill was a naturalized Belgian, and his father had already amassed a large fortune in the construction of spinning machines in factories at Liège. The elder Cockerill died in 1813, bequeathing his business to his two sons. In 1817 they removed their works to Seraing, having made the purchase of what had been a palace of the Prince Bishops, with its grounds and gardens, and was then, of course, the property of the Dutch Government. From the first the new establishment

had excellent connections—no less a personage than His Majesty of the Netherlands being one of the partners. It had taken to constructing steam-engines as well as spinning jennies, and the Government started it with nearly as many orders as it could overtake.

In the beginning, however, it may be presumed that Cockerill was not aware of the full value of his new acquisitions. He saw he had water carriage at his doors to bring him his ore and deliver his ironwork, but he discovered, further, in course of time, that he had coal in abundance beneath his feet. The coal became the subject of a fresh concession, which, considering the friends and partner he had at Court, was doubtless arranged entirely to his satisfaction. In possession of an abundance of cheap fuel, he proceeded to introduce on the Continent the smelting of iron on the English method, and thus nothing can be more compact than the arrangements of this self-contained establishment. There are four coal mines with eight shafts within the area of 200 acres. The furnaces are constructed, for the most part, close to the mouths of the mines, but transport has been everywhere facilitated by laying down more than 20 miles of tramway. The company smelts its own metal with its own coal, and makes, of course, all its own machinery. It owns some 30 iron mines, chiefly in the districts of Liège, Namur, and Luxembourg, but it has also a Spanish property.

The Cockerills are now nothing more than a name; John Cockerill died in 1840, having done a great deal in a lifetime of 50 years for Belgium as well as for himself, and two years after his death his business was transferred to the present proprietors. It is said he had scorched his fingers at the last by keeping too many irons in his fires some of them as far from head-quarters on the Meuse as the banks of the Neva. Be that as it may, the Joint Stock Company has always prospered and gone on prospering. The business it undertakes fluctuates very little from year to year. It is in the enviable position of being able to pick and

choose among its numerous customers in all parts of the world, and not unfrequently has to refuse their orders. It employs on an average over 9,000 hands in its workshops and coal pits, all of them busy within this comparatively confined area, with the exception of the hands in its ship-building yard at Antwerp.

The main approach to the works at Seraing is through a former palace of the Prince Bishops of Liège, a spacious building surrounding a roomy quadrangle, and flanked to the left by shady gardens. The buildings contain the residence of the acting Director, M. Sadonie, with the offices of the administrative and scientific departments, a technical library, laboratory, etc. As you pass the archway and cross the court you look down the long vista of the central alley of a great zinc-covered shed, where, among a double line of forges and anvils, a crowd of workmen are busy over the details of the great machines, hammering away at axles, cranks, and such small gear. It is needless to say that the din is deafening. At first glance, too, it would seem as if confusion reigned supreme everywhere; but, in reality, the organization is excellent, and the discipline all that can be desired. Each gang detailed for a particular bit of work has its special headman or ganger, who is charged with responsibility for everything. It is he who gives instructions, checks the quantity of work done, and inspects its quality. It is he who receives the pay and undertakes its distribution. For there is this admirable feature in the Seraing establishment—that there is none of that dead levelling of unequal powers and capacities insisted upon by English Trades Unions to the prejudice of their best men, the discouragement of praiseworthy ambition, and the injury of the master's interests. Here the work is done by the piece, and the more a man gets through in the regular hours, the more he is paid. The hours are long considering the severity of much of the labour. The works open at 6. At 8 o'clock half an hour is allowed for breakfast. From 8.30 they

work till 12, when an hour is allowed for dinner. At 1 the great bell sounds again, and you see the quays along the banks and the bridge over the river swarming with short blue jacket blouses and flowing pantaloon of the same material. Of women there are comparatively few. By the company's regulations they are forbidden to work in the coal mines—a practice common enough elsewhere in Belgium, and there is not much labour of other kinds that is suited to their strength. From 1 the works are active again till 6, with merely an interval of ten minutes at 4. The average wage of ordinary able-bodied labourers may be about 5*f.* a day. The best of the skilled men make as much as 10*f.* or 12*f.*; some of the boys receive as little as 2½*f.*

Living is by no means very cheap about Liège and Seraing, and in their tastes and habits I am told the men are an odd mixture of industry and indolence, of extravagance and misplaced frugality. Thus, although those who do the hardest work are compelled to live comparatively well, most of the men stint themselves in animal food, and many seldom taste it. They have very little to say to the beer of the country, and in that the traveller is inclined to sympathise with them, for it is neither very seductive nor very sustaining. But, on the other hand, they indulge freely in *genièvre*, and still more in *bequet*, a local name given to a coarse spirit closely resembling the fiery German corn brandy. Whether it is that their heads are naturally strong, or that their exertions act as an antidote to the effects of strong liquors which run off in perspiration, it is said that cases of drunkenness are very rare. Coffee they are devoted to, and they are encouraged in that harmless taste by their employers. There are little apparatuses for making the coffee all over the establishment, and the men may be seen knocking off to drink it at all hours. Indeed, their comforts are attended to in every respect. The work-sheds are spacious and as airy as can be expected under the circumstances, while water is everywhere laid on in profusion.

The coal mines are carefully ventilated on a system which I shall notice, and every precaution is taken to insure the safety of the miners, although they are just as reckless in Belgium as in England, and accidents happen from time to time. It is no wonder, then, that the works are popular, and that the company can pick and choose its people. To sum up their attractions, there is the comfort, almost luxury, of the arrangements. The men command the best wages going. They may count on constant employment; for should orders slacken for a week or two, the company goes on adding to a stock it is sure to dispose of sooner or later. They may work up to the limit of their power and make the most they can. In case of accident or sickness, they are carefully tended—supplied with advice and medicine in their homes, or sent to an excellent hospital in an airy situation on the heights, where they are nursed by Sisters of Charity, and all this is done gratuitously. Attached to the hospital is an asylum for orphans. There is a certain number of houses and apartments belonging to the company, which are let at moderate rents, and very snug and roomy these seem, if we may judge by their exteriors. There are kitchens and refectories for providing food. There are baths, and, lastly, there is a society for relief and pensions, which it is optional to join. Consequently, the work-people are, generally speaking, *ouvriers* of the *élite*; and, although most of them belong to Trades Unions, the company is seldom or never troubled with strikes. It is evident a man would be slow to risk such excellent appointments and prospects on the desperate chance of bettering his condition, and it would seem the action of the Unions is less despotic than with us.

One point is insisted upon. No one in the works shall be a member of the International. The cause of this rule was an *émeute* some years ago, when Internationalist ringleaders fomented a disturbance, which nearly resulted in assassinating the superintendents, and was only put down by calling in the troops. It might be con-

sidered wiser were it made imperative on the men to join the Benevolent Mutual Association; and it may be thought impolitically liberal to give assistance to those who are not members when they fall upon evil times. Nothing is more usual than a man who is in receipt of high wages depositing regularly and largely with the savings society. In virtue of his agreement he finds himself at a certain age a small *rentier* in possession of an income quite sufficient for his wants. Then, though he may be as well able to work as ever, he retires from business and lives like a gentleman on his means, making it a point of pride to do nothing more. He eats and drinks the rents that have been accumulating into an annuity, and leaves the capital behind for his family. The ordinary labourer, so long as he makes, say, 5*s.*, can lay by but little. Allowing for the *bequet* he consumes, he can hardly live for less than 4½*s.* The men are said to become inured to the constant changes from extreme heat to cold, to be healthy, and to live long; but though wiry and active looking, they are by no means big or powerful. Even the sturdiest of them, who are employed constantly in moving ponderous masses by help of machinery, would show small by the side of Englishmen of similar stamp. Still, it is evident that they are equal to long and severe labour. Nothing can be more trying to the endurance, for instance, than constantly drawing out the heavy railway bars through a series of machines arranged for the purpose, and yet the work in that department goes on as indefatigably as in the others. As a rule, their faces show considerable intelligence, and it is a condition of their engagement that they should have received a certain education. In that respect they compare favourably with the peasantry and even the wealthy farmers.

The works themselves are less worth writing about than the workmen, simply because what they show you there is very much what may be seen in similar establishments in England. Still, there are peculiar features worth noting, and interesting even

to untechnical observers. They fabricate cast and wrought iron and Bessemer steel. They turn out every kind of machine and manufacturing engine, with great quantities of railway rails. They are constantly adapting modern improvements, many of these after ideas of their own; and at this moment many of their blowing engines and furnaces are in course of reconstruction on an enormous scale, but on a more compact system. Here you may still see there the first blowing engines constructed on the Continent, with its old-fashioned Watt's condenser, sound as ever, and in regular operation, although it has been active for more than half a century. Close to it, and contrasting with it, are embodiments of all the most modern improvements, still unfinished and showing the skeleton of their framework; blowing engines for the Bessemer work, working up to 600 nominal horsepower, and with the vertical cylinders disposed above the gigantic fly-wheels, so as at once to save space and insure a more equal pressure. It gives you an idea of the power and strain of such gigantic machinery in motion when you observe the massive solidity of the stone and concrete foundations, round which the earth has not yet been filled in. An unfinished chimney is a curiosity of engineering. In height it is 160 mètres, and yet it is made entirely of metal. Not a morsel of timber has been employed in the course of its erection, the workmen having been raised to their work on a sliding circular stage of iron. In forming certain parts of machinery it is necessary to employ hydraulic pressure as the motive power, the pressure in that case being applied more steadily, while steam always imparts more or less of a "jerky" movement, and nothing can be prettier than watching the white hot wheel, having its three sides moulded simultaneously, by forcing it to revolve through a triple set of rollers, while the exact diameter is being carefully regulated by the application of a delicate gauge.

I need not linger by the ponderous steam cranes and steam hammers, which are familiar to every one who has visited one of

our English gun factories. At Seraing the heaviest of the hammers is of 15 tons, while the cranes dispose of a weight of 40 tons. A very neat machine was boring the cylinder of a blowing engine $4\frac{1}{2}$ mètres, equal to 14 feet in diameter. A number of chisels were secured on the disk of a wheel which revolved with a double motion. As it went round it was simultaneously moved forward horizontally by a worm-screw working in the cylindrical shaft that drove it. Each successive chisel laid somewhat deeper hold of the metal than the one that had gone before, and it is evident that to do its work satisfactorily the powerful machinery required to be adjusted with extreme nicety. So with the adjacent planing machine, which smoothed a metallic surface of 28ft. by 16ft.

I might multiply accounts of curious processes and ingenious machines, but besides that many of them are neither peculiar to Seraing nor especially novel, descriptions of the kind must always be dull reading. Two inventions, however, deserve to be noted particularly as specialties of Seraing. One is the vertical blowing machine already adverted to, which goes by the name of "the Seraing system," and for which the company receives more orders than it can execute. The other is the famous air-compressing machinery employed

in perforating the rock in the tunnels of the Ceniz and St. Gothard, and used at the Seraing works for ventilating the coal pits as well as for excavating the coal. The compressed air is stored in vast iron reservoirs, from which it is conducted in pipes over the mines.

In short, the existing administration prides itself, with some reason, on keeping up to the historical traditions of the establishment. The Seraing annals abound in eventful incidents, which place it *facile princeps* among its industrial rivals on the Continent. It erected the first coke blast furnace, the first puddling furnace, and the first coke kilns for making iron after the English method. It turned out the first steam-engine, and subsequently the first locomotive. Its business has been steadily extending, and might, I imagine, be much more extensive than it is, if its directors cared to court additional risk by running the chance of stagnation in slack seasons. Although founded by an Englishman, and still bearing his name, it is remarkable that at present (1878) there is not a single Englishman on the strength of the establishment. It is still more singular, that while our men have been striking and our masters locking-out, Seraing seems to have received no orders from England, as might have seemed only too natural.

WHERE THE ARK RESTED.

THE mountain of Ararat, situated in the north-eastern corner of Lesser Asia, in the province of Armenia, is remarkable as being the spot on which the ark of

Noah rested during the subsidence of the Flood. It is a mountain extraordinary for its magnitude, being at its highest point 17,260 feet above the level of the sea, an elevation considerably higher than that of Mont Blanc. It stands nearly

midway betwixt the southern extremities of the Black and the Caspian Seas, in $39^{\circ} 42'$ of north latitude, and $44^{\circ} 30'$ of east longitude. Though placed close on the line of the immense chain of Taurus, which extends from the eastern shores of the Black Sea far into the centre of Asia, Mount Ararat stands in a measure alone, and has a very grand appearance, the other hills in the neighbourhood being too insignificant in size to hide its proportions

or impair the majesty of its aspect. This great mountain is divided into two heads, respectively named the Great and Little Ararat, which form distinct cones, separated from each other by a wide chasm or glen. The two cones are about twelve thousand yards apart at their summits. The peak of the Great Ararat is perpetually covered with snow, but the Lesser Ararat, which is nearly four thousand feet lower, is clear of snow in summer. The plain in which Ararat stands is watered by the Araxes (the Raksi of the natives), and at no great distance stands the large and populous city of Kars.

The people of Armenia, who have long been followers of the Christian faith, regard Mount Ararat with the most intense veneration, and have many religious establishments in its vicinity. They firmly believe, to a man, that the ark is still preserved on the summit of the mountain, and that, in order to preserve it, the ascent of Ararat has been prohibited to mortals, by a Divine decree, since the time of Noah. The origin of this traditionary belief, which is sanctioned by the Church, and has almost become an article of Armenian faith, is said to be as follows :—A monk in former times, who was anxious to settle some doubts relative to the scriptural account of Noah, resolved for this purpose to ascend to the top of Ararat to satisfy himself whether or not the ark was there. On the declivity of the mountain, however, he had several times fallen asleep from exhaustion ; and, on awaking, found himself always carried back to the very spot from which he first started. At length, out of pity, an angel was sent to him with the information that he had entered on an impracticable task, but, at the same time, his zeal was rewarded by a Divine presentment of a piece of the ark. This piece is to this day preserved as the most valuable relic in the neighbouring convent of Etschmiadsin, the seat of the Patriarch, or Primate, of the Church of Armenia.

Numerous other traditionary stories are current respecting failures in attempts to

ascend Mount Ararat, and punishments befalling the presumptuous adventurers.

Nevertheless, there is no doubt that the mountain has been several times successfully scaled. A Russian professor, Dr. Friedrich Parrot, made the ascent in 1829, and only a year or two ago the correspondent of a daily paper accomplished the same feat. The people, however, steadfastly refused to believe in his story. On his return to lower regions, the intrepid explorer was entertained by a party of priests, who listened patiently and smilingly to his story, giving no sign of contradiction till he had concluded. Then, taking his pipe from his mouth, the senior priest said gravely, "No one has ever ascended Mount Ararat, and no one ever will!" which, as the traveller observes, was perhaps the ecclesiastical way of calling a man a liar !

An American traveller, the Rev. R. M. Cole, writing from Erzeroom, gives an account of his recent ascent of Mount Ararat.

"It fell to my lot to make a tour to Bayazid, not far from the foot of the grand old mountain of sacred associations. Bayazid is an old town, formerly of considerable importance as an outpost of Government, near the Persian and Russian borders. It figured somewhat conspicuously in former wars with Russia, being not a little knocked to pieces by that power, and many of its population, and also that of villages in the region, carried away willing captives.

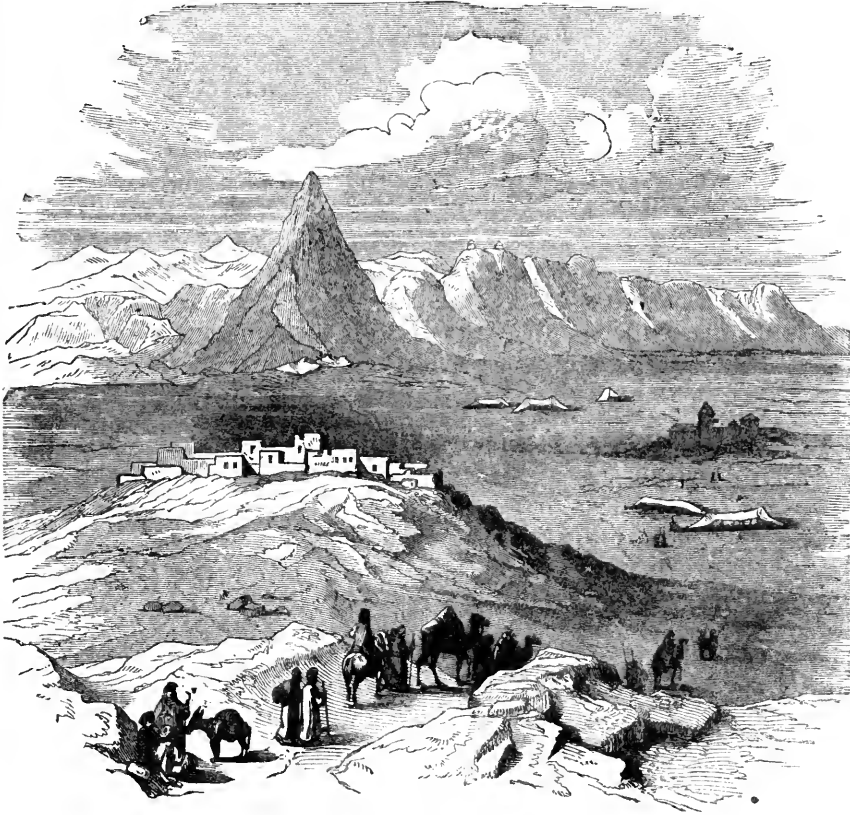
But it remained for the recent war to single out the place for the enactment of an event quite black enough for the darkest of the dark ages. The Koordish Sheikh Jalaldin led on a massacre here such as will leave a blackened page on the history of this war. The rehearsal of it is sickening indeed. I have no heart to go over the story of blood and fiendish atrocity.

In my visit to the place, I was the guest of the pasha in charge at the time, and took dinner with him in the fated old castle. Here that brave Russian garrison withstood the reign of terror from the outside that

rent the air with cries of agony and bloodshed.

With two native attendants and a good government guard, we set out across the plain from Bayazid. The poor, ignorant superstitious townspeople gather about us and beg us to desist from such a sacrilegious undertaking. God's angels were guarding the ark on those lofty heights, and no mortal might approach!

But away we hasten over the plain Bearing to the eastward, we pass through quite a field of high reeds, which are said to be the hiding-place for savage wild boars. Turning to the left at the end of some ten miles, we make our way up along the eastern slope of the mountain, winding this way and that, now in a deep ravine, passing beneath some overhanging cliff that threatens to crush us; now they fall back, leaving



MOUNTAINS OF MESOPOTAMIA.

our pathway in an open space that suggests the idea of a plain. Ere long we pass alongside an extinct volcano. Some fifty years ago old Earth gathered up its fire of wrath, and spit it out in torrents for a little time. The mountain was literally torn asunder and the debris scattered in all directions.

On we go till, after a ride of some twenty

miles, we dismount at the tent of Yisoos Agha, chief of the Jalal Koords, a warlike tribe that inhabit these regions, grazing their flocks through all the long summer, even up near to the eternal snows, but in the severer part of winter dropping down near the plain, where they pass their time in low dirt hovels. They are notorious brigands, and he must be well guarded who would

venture among them. We found them to consist of a large encampment of three divisions. Perceiving the hat on my head and the strong guard about my person, they advance with remarkable cordiality, take me from my horse in a most stately way, and lead me to the tent as they would a king. Of course they had in mind the inevitable Turkey *backsheesh*, which is a mighty power in this land. But such an ovation from these wild barbarians of the desert we hardly expected. They even went so far as to set about sacrificing a kid to the Prophet, that he would make our ascent of the mountain propitious: but we asked them to desist, as we knew full well the only gain to us would be to pull all the harder on our purse-strings in making up the *backsheesh*. We take along five of these hospitable Koords, who are our friends for the time being, and can be of much use in taking us over the best way to the point we have in mind, for the last part of the ascent. But at the end of twelve miles both they and our faithful horses have to be left behind, the former from superstitious notions, and the latter from inability to clamber up the rugged rocks.

We come now to the steep and dangerous part of our ascent. Soon we are treading on the eternal snows. In places we flatter ourselves we are putting foot on *terra firma*, but what is our surprise to find, under the debris that has rolled down from above, a field of solid ice (for such become these perennial snows), upon which if the foot slips it sends small pebbles rolling down the mountain-side, to begin with, but it may undermine larger and still larger ones, till soon Mr. Boulder is moving down upon us! But through caution we were able, for the most part, to cling to the

rocky ledge that forms a sort of backbone to the mountain near a massive ice-glacier that extends up along our right to the very summit. As it was a very hot season, and the last of August, this ridge was well-nigh bare to quite near the top.

Thus up we climbed, as the awe-stricken Koords from below observed, now clawing at the jagged rocks with the crook on the upper end of our canes, now pushed out upon the ice again, where we have to drive down with a will the long iron point on the lower end, and stamp in the long spikes we had extemporized in the heels of our shoes. On we go, pausing ever and anon to take in the magnificent scenery that stretches off on every hand. On this side Persia, with its ever-varying hills reaching far away to the silvery Oroomia lake. On that Russia, the great Erivan plain, with the beautiful Araxes threading its way on towards the Caspian sea. At the south and west the Turkish dominion, which is not wanting in all the variety of mountain and plain. Down from our dizzy heights we look upon the arid plain. The Russians crossed and recrossed this from the west end of the mountain in their late attack on Bayazid.

I was strongly impressed with the feeling that the ark may have rested on this particular mountain—not on the precipitous part, but near to it. As I have before said, the Koords are to-day taking their numerous herds up and down this same valley that we ascended, very near to the limit of perpetual snow. Hence, as I retraced my steps down the mountain-side, I could but feel that perhaps down along this same valley wended its way that solemn procession of beasts and creeping things of every description, passing out on to the plain to the eastward."

A WHALE HUNT IN FAROE.



HERE they are, looking at a distance like a bar of great buoys and floats bobbing up and down, as ever and anon they pop up their black blunt heads to blow and breathe. A line of boats behind them keeps their noses up the firth, and hinders them from turning, and so they are slowly driven up towards the head of the haven, and if they ever try to turn, they are driven back by showers of stones, and by harpoons thrown out on the water and drawn back with a line. Silly creatures! they do not know their own strength: they have only to make a dash at the boats, which would be scattered and upset in the twinkling of an eye; or if they prefer to avoid the foe without a struggle, they have only to dive under the ring of boats and swim away down the firth. That would be human nature; but it is not whale nature, which stupidly rushes on to its fate, and is drawn by some instinct to seek the bight of the firth where death awaits it. And now we combatants make a start. The fighting-boats are drawn up on shore, inside the ring that hems in the whales. The firth is here about a quarter of a mile wide, and it is about three-quarters of a mile to its upper end. It is surrounded by a natural amphitheatre of hills, down one of which rushes a mountain stream, making a waterfall just before it reaches the foreshore. We have room enough and to spare for our bloody work, in which from thirty to forty boats may be engaged. At first we row carefully, so that we may not head the whales, rather keeping between them and the ring of boats, from which frequent showers of stones are still hurled. Again and again one might fancy one's self in the South Sea Islands; the loud shouts, the rude weapons, the strange jargon of speech,

the stalwart forms standing up in the stem and stern to hurl the harpoons. The first blow had been struck before we came up, but we were soon in the midst of the *mêlée*. The sea at first is white with foam, as the whales, now scared and diving on all sides, but still keeping up the firth, lash the water with fin and tail. Now boat strives with boat to harpoon and grapple with them as they rise to breathe. As the whale belongs to the boat who first grapples with and kills it, the rivalry is intense. We believe the parson kills the first whale that day, but the Sysselmand is not far behind. In a few strokes a big fellow rises close to us. In an instant our chief has struck him with a harpoon, others grapple him with boat-hooks, and the man nearest his throat draws his long finching-knife and plunges it into the blubber, which gives a strange crisp sound as the blade is buried in it up to the hilt. We are close to the poor creature's head, and it turns up its meek eyes in a way to rouse pity in any tender heart. But save our friend and ourselves, there are no hearts in that boat to be troubled with the mute appeal of a whale's eye. Baring his arm to the shoulder, the Sysselmand scores the creature's throat in long gashes with demoniac energy. Torrents of blood follow, and the crisp white coat of blubber, which when cut looks more like a water-melon than animal flesh, is soon cut through; then the hand and the arm must be plunged in up to the elbow to reach the whale's true flesh. In a trice its throat is cut; its frantic efforts to escape, during which it hurries us along with it fast grappled to its side, gives a fling with its tail, and dies. After death the carcass must still be held, as it is whale's nature to sink as soon as the breath is out of its body. It is therefore either buoyed and turned adrift, or handed over to some non-fighting boat to tow on shore.

AMONGST THE ESQUIMAUX.



BOOKS of Arctic travel contain much that is interesting concerning the Esquimaux, a race whose lives appear to be cast in perhaps the most unpropitious circumstances possible. Some account of this singular people may not be uninteresting. They appear to derive their origin from a Red Indian tribe, driven in some remote age from the northern parts of the American continent by war, and gradually extending their habitat towards the pole.

The habitations of this remarkable people are thus described by Captain Parry, who says that a collection of igloos, or huts, though within sight of his ship, had escaped notice for months from being constructed of snow, and so mingling with the surrounding landscape. His surprise may in some measure be imagined at finding an establishment of five huts, with canoes, sledges, dogs, and above sixty men, women, and children, as regularly and to all appearance as permanently fixed as if they had occupied the same spot the whole winter.

"If the first view of the exterior of this little village was such as to create astonishment, that feeling was in no small degree heightened on accepting the invitation soon given us to enter these extraordinary houses, in the construction of which I observed that not a single material was used but snow and ice. After creeping through two low passages, each having its arched doorway, we came to a small circular apartment, of which the roof was a perfect dome. From this three doorways, also arched, and of larger dimensions than the outer ones, led into as many inhabited apartments, one on each side, and the other facing us as we entered.

The interior of these presented a scene

no less novel than interesting; the women were seated on the beds at the sides of the huts, each having her little fireplace or lamp with all her domestic utensils about her. The children crept behind their mothers, and the dogs slunk past us in dismay. The construction of this inhabited part of the hut was similar to that of the outer apartment, being a dome formed by separate blocks of snow laid with great regularity and no small art, each being cut into the shape requisite to form a substantial arch, from seven to eight feet in the centre, and having no supports whatever but what this principle of building supplies. Sufficient light was admitted into these curious edifices by a circular window of ice neatly fitted into the roof of each apartment."

It was the lot of Captain Hall to spend an entire winter with a body of this harmless and interesting people. This he did in order to inure himself to the hardships necessary in order to prosecute the search for Franklin which he meditated far into the north. He first made a journey with the Innuits.

"Now and then," says the Captain, "we all got on the sledge for a ride. My spirits were high, for this was my first sledge-travelling trip. Ebierbing (the Esquimaux driver) managed the dogs admirably. Indeed, I should consider him a capital dog-driver. I think I never perspired so profusely as on this day. Some of the events during our journey were most amusing. Once we were descending a steep incline, all of the company holding on the sledge, so as to prevent its shooting too rapidly downward, when one of my feet breaking through the treacherous snow-crust, headlong I went, and, like a hoop, trundled to the bottom of the hill. The Inuit woman hastened to my relief, and seeing a frost-bite on my face, she instantly applied her

warm hand to it—the native method—till all was right again. Another steep incline caused the sledge to descend so rapidly that at length it went over three or four of the dogs, who were unable to keep ahead of it, though running at great speed.”

The construction of an igloo, or hut, occupied about an hour. The men first sawed out snow-blocks, which were carried to a suitable spot, and soon, by the aid of snow, formed a very comfortable house.

“The door sealed up, and the cheerful lamp in full blaze, with a hot supper preparing, made me feel remarkably comfortable, though in a house of snow built so speedily upon the frozen surface of the treacherous deep. The lamp was trimmed, and soon a kettle of snow was over it, boiling water for coffee and soup. Presently our evening meal was ready. It consisted of soup, a small piece of raw salt pork each, half a biscuit, and some coffee. After supper, myself and the two male Esquimaux had each a pipe, and then turned in for the night, my position being between the hot-blooded Innuits, Ebierbing and Koodloo. I slept as well as I could desire, and on the following morning, after breakfasting about nine o'clock, we recommenced our journey. Our proper course was due north, but owing to hummocky ice we could not follow it. In truth, sometimes we had to make a retrograde movement to get out of ‘a fix’ that we were occasionally in amongst icebergs and hummocks. Owing to this we made but five miles direct toward our destination during the day. It had been expected that we should reach the end of our journey in one day from the vessel, but too many obstacles arose to prevent it; and thus a second night came upon us while still upon the frozen sea. A storm was also gathering, and its darkness, with the howling wind, which had by this time changed, was foreboding. We were likewise much worried with the day's labours, and it was some time after our sledge journey had ended for the day before a suitable spot was found and our second igloo erected. At length, though long after dark, we were

comfortably housed, enjoying a hot supper beneath the snowy dome, the foundation of which rested upon the frozen bosom of the mighty deep. But not too soon were we under shelter. The storm had burst in all its fury, and we could hear the wind roaring outside as we warmed ourselves within. All night long the gale continued, and the next morning—the third of our journey—it was found impossible to go on. It was blowing a strong gale, and continued so all day, with snow falling in blinding showers. We were therefore obliged to keep inside our shelter, wrapped up in furs.

At about 4 p.m. Ebierbing ventured outside to see how matters looked, but he soon returned with the astounding intelligence that *the ice was breaking up, and that water was appearing not more than ten rods south of us!* I also looked out, and, to my utter dismay, discovered that a crack or opening extended east and west to the land, distant about three miles! The gale had evidently set the sea in heavy motion somewhere, and its convulsive throbs were now at work underneath the ice both close to and around us. It still blew very hard, but as yet the wind was easterly, and so far good, because if a near disruption took place, we should be forced towards the land; but if it changed to N. or N.W., away to sea we must go and perish!

Seriously alarmed, we consulted as to what was best to be done,—whether at once to hasten shoreward, or remain where we were and take our chance. On shore, nothing but rugged precipices and steep mountains presented themselves; on the ice, we were in danger of our foundation giving way,—that is, of being broken up,—or else being driven out to sea. At length we decided to remain while the wind blew from its present quarter; and to guard as much as possible against any sudden movement taking us unawares, I kept within sight my delicately poised needle, so that the slightest shifting of the ice on which we were encamped might be known. In the evening the gale abated, and by 10 p.m. it was calm, but the heavy sea kept the ice

creaking, screaming, and *thundering*, as it actually danced to and fro. It was to me a new and fearful exhibition. When I retired to bed, I laid down with strange thoughts in my mind, but with a conviction that the same protecting Hand would watch over me there as elsewhere.

The night passed away without any alarm, and in the morning Koodloo made an opening with a snow-knife through the dome of the igloo for peering out at the weather. He reported all clear and safe, and after a hot breakfast, we repacked the sledge and started once more, though under great difficulty and hazard."

Their progress, however, was but slow, being retarded by innumerable snowdrifts and fissures in the ice. "To guard against and extricate ourselves from these dangers," continues the narrative, "yet find a track amidst the hummocks around, was no easy task; each of us by turns took the lead, and in this manner we proceeded on our way; but it was evident we had hardly strength enough left to persevere in reaching our journey's end that night. By 2 p.m. we were so exhausted, that I deemed it expedient to make a halt, and use a little more of our slender stock of provisions, which, owing to our unexpected detention on the way, had become very low. Each of them, therefore, had only a slice of raw salt pork and a quarter of a biscuit. This trifling refreshment, however, renewed our failing energies, and again we pushed forward, hauling, scrambling, tumbling, and struggling almost for our lives."

Just in time, the exhausted men were cheered by the sight of a distant igloo, and made renewed efforts to reach it, which they fortunately succeeded in doing. Here they obtained rest and refreshment, but their hardships were by no means at an end. To such an extremity were they reduced, that Captain Hall was fain to "eat heartily" of *raw frozen whale hide*. At last they were in a sad condition from actual want of

food, and determined at once to send to the ship for the needful supplies. The weather having slightly moderated, they started; but the Captain had become so weak that he could scarcely proceed. In this dilemma, two of the Innuits went forward on snowshoes, while the Captain returned to the igloo, which he reached quite exhausted.

Again for three days semi-starvation was the lot of the traveller, till in three days time one of the Innuits returned from the ship with supplies, and a seal which he had taken on the way.

"According to Innuity custom, an immediate invitation was given by the successful hunter's family for every one to attend a 'seal feast.' This was speedily done, and our igloo was soon crowded.

My station was on the dais, or bed-place, behind several Innuity women, so that I could see what was going on.

The first thing done was to consecrate the seal, the ceremony being to sprinkle water over it, when the stalwart host and his assistant proceeded to separate the 'blanket,' that is, the blubber, with skin, from the solid meat and skeleton of the seal. The body was then opened, and the blood scooped out. This blood is considered very precious, and forms an important item of the food consumed by Esquimaux. Next came the liver, which was cut into pieces and distributed all round, myself getting and eating a share. Of course it was eaten raw,—for this was a raw meat feast,—its eating being accompanied by taking into the mouth at the same time a small portion of delicate white blubber, which answered the same as butter with bread. Then followed distributing the ribs of the seal for social picking. I joined in all this, doing as they did, and becoming quite an Innuity, save in the quantity eaten. This I might challenge any white man to do. No human stomach but an Innuity's could possibly hold what I saw these men and women devour. But they seemed none the worse for their meal."



A BLACK SEA TOWN.

THE town of Poti, on the Black Sea, acquired by the Russians from the Turks, would not appear to be a very pleasant place of residence if the accounts which travellers have given of it are to be believed. On a recent visit two days elapsed before the writer could get on shore. The water off the mouth of the river

Rion is so very shallow as to compel large vessels to lie at least two miles off shore ; so there the passengers, most of them landmen, had to wait, most of them sick, tossed about, and gazing longingly at the distant shore. It presented a most uninviting appearance. Low, long sand beaches, every moment hidden from view by the heaving waters. A few stunted bushes here and there, and the ribs of wrecked vessels sticking up like those of skeletons. The inhabitants of the coast cannot be much in want of fuel in view of the prodigality with which the Black Sea has furnished them with proofs of its power, scattered for many a mile along the neighbouring sands. A tall, staringly-white lighthouse stood prominently up, close to the water's edge ; and right and left were two large earthworks, armed with very heavy guns.

On the second morning, the captain, losing all patience, ordered out one of his boats, and at imminent risk made for the shore, which would never have been reached had not the people on board the tug taken courage and come off to their relief, taking them in tow.

During the half-hour we occupied in reaching the river's mouth I had an opportunity of taking a look at my fellow voyagers. There were dark-faced Persians, with characteristic tall, cylindrical hats of black Astrachan wool ; ample robes, blue, purple, or green tunics ; silk sashes, and beards

stained fiery red with henna. Georgians, with long black tunics, garnished with cartridge tubes ; silver belts and flat peaked caps. Jews with indescribable hats and greasy fur-lined robes. Circassians in their picturesque costumes, with huge black goat-hair cloaks ; and among all these a couple of semi-European looking merchants. Each person had with him one or two enormous wooden boxes, or as many still larger bales sewed up in carpets. The Persians, as a rule, seemed to have an extraordinary predilection for umbrellas, each having at least three ; some as many as five. They can't all have been itinerant merchants of this useful article ; though at first sight such a supposition seemed quite admissible. Every one of the forty-nine passengers was heavily armed. Nearly all had long brass-ringed flint-lock muskets and a pair of pistols of the same description. Some in addition carried sabres and long broad-bladed daggers. To look at the wild faces, strange costumes, and variegated arms of the bearded crowd, closely packed into an equally uncommon-looking lugger, one might easily suppose them a band of pirates starting upon some desperate mission of plunder and slaughter.

The current in the river Rion is surprisingly rapid for such a sluggish-looking stream.

As we entered its mouth our tug steamer had a hard struggle to make headway. Poti itself, or rather the landing-station, lies a couple of miles up the river on its left bank. The town itself is quite invisible from the river, or from the sea. I don't think I ever saw anything so hopelessly dreary as the aspect of either bank of the Rion. The Dismal Swamp itself would seem cheerful in comparison. To the right is a wilderness of low scrubby bushes, three or four feet high, amidst which the imagination pictures whole broods of alligators. To the left is a jungle-like forest of distorted

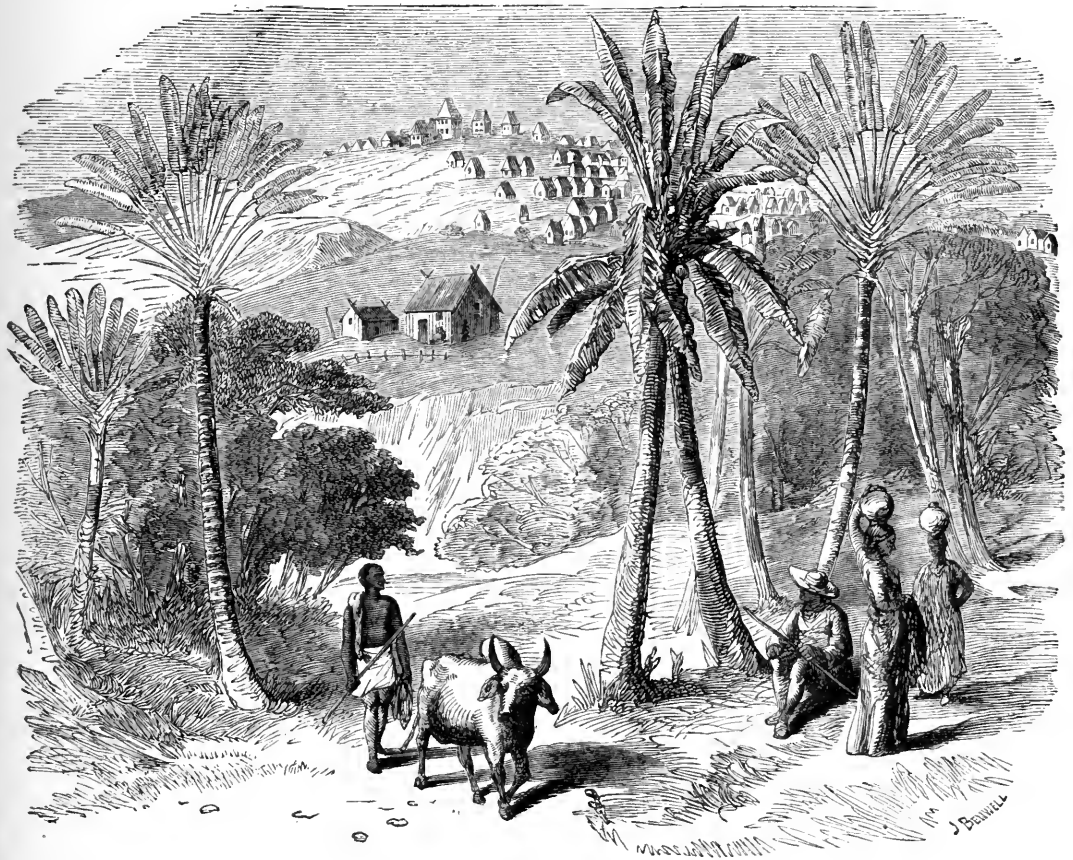
trees, rising from an inundated swamp, the long reaches of water glistening amid the blighted sooty trunks and falsely green surfaces of the quagmire. Great efforts have apparently been made to check the intrusion of the river, as one can judge from the double rows of piles appearing over the water, with their intermediate walls of boarding. It had no doubt been intended to fill up the inner space with earth; but the current has demolished everything; and the rotten planks swing to and fro, half attached to the piles. It has been found impossible to drain the swamp, so nearly does its level coincide with that of the river; and the result is that in autumn Poti is a nest of fever. No one who can possibly get away thinks of staying there during the unhealthy months.

We came alongside of a rickety wooden stage, where three or four panting high-pressure tugs and some huge iron flat-bottomed river barges were lying, the entire scene strongly recalling similar ones I have seen on the lower reaches of the Mississippi. One by one we mounted by a narrow plank, at the shore end of which stood an imposing-looking official in uniform, who scrutinised our passports and examined the *visas* carefully. Our luggage was then landed, and within the precincts of a boarded-in inclosure we had the pleasure of waiting a good two hours till it pleased another high and mighty individual to come and investigate the nature of our baggage. Everything arranged, I sallied out by a great gate resembling that of a fortress, my luggage borne by a porter from whose back protruded a enormous mass of reeds sewn up in leather, and which seemed in itself quite a load to carry—destined to support the goods he conveys. A crowd of open carriages, “phaetons” as they style them here, waited outside, drawn by lean, hungry-looking horses; the drivers with their flat glazed caps having the general appearance of policemen in disguise. They seemed very much in fear and terror of the police authorities, and did

not, as is usual with their western confrères, brandish their whips, shout, and charge recklessly at a fare to the imminent peril of his life. On the contrary, they sat quietly on their boxes, with a more than Mohammedan stoicism—apparently quite indifferent as to whether any one hired their vehicles or not.

Poti itself is a clean open town, thoroughly European in the character of its shops and buildings. The streets are very wide, and even at this period of the year perfectly dry. In fact, they could scarce be otherwise, for the sun was intolerably hot, and the sky blue and almost cloudless. After a long residence in Mohammedan countries, one sees with a sense of naive surprise figures of boots and shoes and other articles painted on signs hung over shop doors; and the glass windows of the shop fronts strike one as something decidedly remarkable after the open booths of Turkey. The contrast is as striking as the change is sudden, in seeing ladies in European costume walking openly in the street, instead of shrouded and veiled female figures of the neighbouring empire gliding stealthily along, as if oppressed with some overwhelming sense of guilt.

In itself, Poti presents nothing remarkable. It is a town of some five thousand inhabitants, and wonderfully spread out, owing to the width of its streets. Owing to the difficulty of access by water, and of embarking or disembarking cargoes and passengers—a thing which becomes actually impossible in rough weather—Poti will never become a place of any importance, unless the great engineering works in course of execution be carried out successfully. These consist of piers, two of cast iron and another of stone, intended to be pushed out sufficiently far to allow large vessels to lie alongside. These piers are not being constructed at the mouth of the river branch on which Poti is built, but at that lying north of the delta on which the lighthouse stands.



MADAGASCAR AND ITS PEOPLE.



AN interesting problem is being worked out in the Indian Ocean. Here a barbarous people, under the influence of a religion brought from a foreign land, have engrafted upon their social system a civilization at first sight most alien to their habits, and, amidst many errors and vices, are feeling their way to a higher level of national existence and culture.

Situated to the south-east of the continent of Africa, from which it is separated by the Mozambique Channel, Madagascar stretches

from the 12th to the 26th degrees of south latitude, and from the 44th to the 51st degrees of east longitude, extending about 900 miles in length, with a maximum breadth of 280 miles. Its superficial area is equal to that of France, while its population appears, from recent computations, not to exceed 2,000,000; it is, in fact, almost a desert.

Madagascar was discovered by the Portuguese in 1506, but immediately abandoned. Subsequently the French visited it, and the great African island has been the object of many French expeditions. Attempts have been made to colonise it; there has, in fact, been a continuous occupation of part of the

island by the French. Madagascar, however, never passed under French dominion; and though the names of Saint Laurent, Dauphine, and Eastern France were successively bestowed upon the island, it has finally resumed that of Madagascar.

Madagascar is peopled by two distinct races, the Madegasses or natives, usually called Malagasy, and the Hovas. The former, whether Sakalave, Betsimsaraka, or Antankara, are black, more or less modified by mixture with Caffres, the natives of the Mozambique, and Arabs. Tall, strong, and savage, they have been able in the south and south-east to preserve their independence. On the east coast the Betsimsaraka, gentler, more devoted to pleasure, and slighter in form, were the first to lose their liberty. In the north the Antankara, robust, strongly built, and more resembling the natives of Mozambique, still continue the struggle for liberty, and seek in inaccessible parts of the interior, or in the islands on the coast, a refuge from the tyranny of the Hovas.

The Hovas, who are of Malay origin, arrived on the eastern coast of the island at a very early period, and having been driven into the interior by the natives, established themselves on the central plateau of Imerina. The fate of this colony was remarkable. At first, regarded by the Malagasy as an outcast race, everything they touched was considered impure, and the cottage which a Hova had slept in was burned. Isolated in their wild retreat, the outcasts transformed the magnificent plain of Imerina into a desert, fired the forests which might otherwise have afforded concealment to an enemy, and to be secure from surprise, erected their villages on hillocks in the plain. Subsequently, however, as an overture to a peace which they so much required, and as a tribute to the Malagasy, whom they acknowledged as masters, the Hovas brought rice, maize, and other products of their industry to the boundary of the forests, whither the others came to receive them.

These years of oppression had an injurious effect upon the character of the Hova; he

became sullen, suspicious, cunning, cruel, and treacherous, and when, towards the end of the last century, a man named Andrianamponine invited them to shake off the yoke, he found it only necessary to collect the various tribes into an army. The desire of power and thirst for revenge had made them already soldiers in heart. During the years that the Hovas have been masters of a portion of Madagascar, they have decimated the unfortunate natives, and exercised without pity the rights of conquest. Tamatave is the chief seat of their power on the east coast; there they exercise unlimited authority over the black population, but are less overbearing towards the whites with whom they come in contact.

Tamatave has the appearance of a large village, and, consisting merely of a conglomeration of huts, is quite unworthy to be called a town. The principal street is a long and narrow avenue, bordered with slight wooden stakes, forming enclosures round the houses scattered along each side, and sheltered at intervals from the heat of the sun by the large leaves of the palm-tree, or by mulberry-trees laden with ripe fruit. On the right the English flag waves over the Consulate, and a little farther, on the same side, a high wooden building, the residence of the Madegasse Rothschild, the agent of the Hovas for the sale of cattle. The country around seems a perfect desert, interspersed with swamps, and even in the centre of the town there are large pools of stagnant water, which spread a poisonous miasma through the neighbourhood.

The Malagasy of the coast is of a gentle and timid disposition, faithful and devoted. As a matter of course, he acknowledges the superiority of the white man—the *Vassa* appears to him as a master who is entitled to obedience, and he is full of admiration of his knowledge and power. The Madegasse willingly accepts the yoke of servitude. The varied and light tasks of domestic life suit his tastes, and he is very grateful for the little favours which he receives from his master in daily intercourse. Delighting in active life, and indefatigable in any employ-

ment that suits him, he will paddle a canoe the whole day, in sunshine or rain, without apparent fatigue; he particularly enjoys the motion of the tacon, and will carry you from daybreak till evening, and then, forgetting his fatigue, will join his companions in choruses, when the wild music of their bamboo instruments seems to invigorate his bronzed frame. But he cannot endure regular labour, accustomed as he is to supply his simple wants without forethought or difficulty.

The Malagasy is gracefully and almost femininely formed, his face is beardless, and he wears his long hair in braids, like the women, and when seated basking in the sun, clad in his *lamba*, it is difficult to distinguish him from a woman. The women, without possessing absolute beauty, which is rare everywhere, have a pleasing physiognomy, and are generally well made.

The women all dress in much the same way. The hair is divided into regular squares, and carefully plaited, which gives a very neat appearance to the head, very unlike its natural condition of a great tuft of frizzled hair. The petticoat or skirt worn by the rich is of muslin—amongst the poorer class it is of common cloth; the body, which is of different material, is called a *canezon*—a native term—and the loose drapery wrapped round the shoulders is called the *simbou*, which is of cotton or silk, according to the social position of the wearer. The older children wear trousers, in imitation of the European custom; the younger wear only the *lamba*, a kind of cotton shawl, with a coloured fringe, which is the usual dress of the men. When travelling, the native takes off this garment, which he carries in a bundle, and wears only the *langouti*, which is merely a

small piece of stuff fastened round the loins.

The manufactures of Madagascar are of a very simple character. The natives weave various kinds of stuffs from palm leaves; the coarsest is used for making bags, packages, etc.; the finest, which is really a superior material, is worn by the women, and makes excellent hats, but it is only to be seen in small quantities. They plait mats of rushes, with which they carpet their rooms. A few of these, ornamented with elegant patterns, are exported as curiosities to Europe.

The capital, Antanànarivo, "the city of a thousand towns," is built upon the summit and slopes of a lofty hill of granite and basalt rock. The city hill is a conspicuous object from all parts of the adjacent country. From places fifty miles distant the white roofs of the lofty palace can be distinctly seen.

The capital presents a very lively and animated scene every Friday. From early morning all the roads leading into the city are crowded with people bringing in their goods for sale, or coming to make purchases; and the chief roads in Antanànarivo, especially the one leading from Andohàlo, past the printing-office and the memorial church, to Zomà, are crowded all day with people. It is a good place for observing the various types of countenance in the different tribes from distant parts, and for becoming acquainted with the products of the country and the articles manufactured by the people. It is true that some of the finer silk lambas and more expensive European goods are not often exposed for sale, but are to be purchased at the houses of the traders and manufacturers; but almost everything else produced in the central parts of the island may be seen.



THE REMAINS OF A FAMOUS ORACLE.

NEVER, it may be said, since the early days of the Renaissance, when were unearthed so many of the extraordinary treasures that had lain hidden away from the light, and thus saved from the ferocious barbarity of the Dark Ages, have such extensive discoveries of antiquity and prehistoric days been made as within the last few years of the world's history.

Amongst these discoveries the researches of Dr. Schliemann and other archæologists in Greece hold the highest place. The latest achievement in this direction has been the identification of the Oracle of Dodona, the oldest of all the sanctuaries of Greece, founded by the Pelasgians anterior to the development of polytheism, and no less venerated by the brilliant races who succeeded them. "Great Dodonian Zeus, who live afar, and reign on the cold Dodona," such is, at a decisive moment of the Iliad, the invocation of Achilles to Jupiter.

The sanctuary of Dodona has only recently been discovered by M. Carapanos. The ruins of the sanctuary have generally been sought for near the lake of Janina; tradition placed them at Astritza. About twenty years or so since, a member of the *École Française* of Athens, led by an exploration in Epirus to the important ruins near Taracovista, the capital of Molossia, was independent enough to regard these ruins rather as those of the sanctuary of Dodona. M. de Claubry is proved now to have been correct in his surmise, and M. Carapanos has brought to the support of his discoveries a mass of unanswerable proofs. He has explored the ruins of Taracovista, and brought forward a number of inscriptions relating to the oracle of

Zeus Naïos and Dione, the great divinities of Dodona.

It was here, in a damp cold valley, that was situated the temple. The towering mountain, on the slope of which lie the ruins, is the Tomaros. A small enclosure, with towers which rise from 6 ft. to 10 ft. above the ground, marks the site of the ancient necropolis. The large theatre, in such excellent preservation that the seats still remain, served for the celebration of the Naïan games in honour of Zeus Naïos and Dione. The walls which descend the slope from the hill by the side of the theatre mark the sacred enclosure, inside which rose the different religious buildings, among them the temple of Jupiter, the ruins of which lie mingled with those of a Christian church, which succeeded it in the early years of our era. This enclosure has been carefully explored, and from the excavations there made came to Paris an interesting collection of superb antique bronzes, statuettes, sacrificial utensils, figures of animals and human heads, a wealth of ornamental design which shows the extraordinary artistic resources of their fashioners. A number of inscriptions, of great classic and archæological interest, were also discovered. Some of these are public documents, others private, relating to property preserved in the Temple, according to the custom of the Greeks, who confided to the care of the gods their family or legal documents. But the most numerous and interesting of these inscriptions are of a religious character.

As long ago as the days of Herodotus, the father of history, in his ardour to pursue the solution of his religious problems, visited Dodona, after his travels in Egypt and Cyrene, and he arrived at the conclusion that formerly a priestess of the Temple of Jupiter in Egypt, at Thebes, had been transferred to Dodona, where

she had founded the worship of a god whom she had honoured in her country.

As to the revelations themselves, they are connected especially with the manifold nature of a great god of the air. It was the breath of an invisible deity which agitated the shuddering leaves of the sacred grove of oaks,—the many-tongued oaks, as Sophocles has called them. It is especially of these prophetic trees, whose rustling murmur the priestesses interpreted, that the classic authors speak so often. Again, it was the breath of Jupiter which sounded the brazen bowls of the oracle. In later times, this latter mode of divination was modified by the invention of an ingenious apparatus, of which Strabo and other classic writers speak at length, without, however, agreeing perfectly as to the details, but all making mention of a statue with a whip formed of a triple chain of knuckle-bones; this chain, by the action of the wind, struck the brazen vessels, and jostled them one against another, and from these discordant tones the priestesses drew their oracular decrees. So long did these brazen vases resound, that a Greek proverb compares an inveterate talker to the vessels of Dodona.

There existed also another mode of divination, the murmur of the waters, in which, from an analogous conception, was heard the voice of the sovereign fecundator, the god of the damp valley of Tomaros. From the roots of the sacred oaks, if we are to believe a classic authority, sprang a source (which may be identified with the fountain of which both Pliny and Lucretius make mention), whose icy waters, when an extinguished torch was plunged into them, rekindled it. Divination by lots existed also at Dodona. The means of consultation, in fact, were various, as we see in this privileged and sacred spot, the centre where an archaic religion had gathered

together the ancestors of the Hellenes, the Greeks, as Aristotle calls them, and where this awe-inspiring worship had initiated them into the first elements of civilized existence.

For centuries the most hallowed of Greece, the oracle of Dodona was consulted from all parts of the Hellenic world, not alone by the various Governments, but by private individuals, and the nature of some of the questions asked may be gathered from some of the inscriptions which have been found. Several petitioners desire that wish common to all ages, of health and fortune; in these there is nothing remarkable, but what is worthy of notice is the extraordinary confidence with which some of the petitioners state their wants. One man is about to buy land, and asks the oracle whether he shall purchase a property in town or in the country. Agis consults Zeus on the subject of his pillows and blankets, which he has lost or had stolen from him; and what numerous other demands would have been found had time only spared them, it is easy to imagine; but should good fortune still reward the explorers, we should, we are afraid, find after all that in a matter of devout puerilities the moderns have invented but little.

It would be curious to know what the oracle replied to such questions as those of Agis and the shepherd. Perhaps further researches will reveal these secrets; some replies have been found, but, unfortunately, utterly unreadable. Even were the explorers fortunate enough to give to the world all the answers, it is not improbable but that we should only find embodied, in other words, that excellent advice of the Latin poet counselling the makers of vows to wish with the health of their bodies the health of their mind,—“*ut sit mens sana in corpore sano.*”

THE SANTALS.



IN the month of July, 1855, the Anglo-Indian population of Bengal, and notably of Calcutta, was seized with a sudden panic. It was reported that a horde of barbarians, wild and untamable as the followers of Alaric or Attila, were in full march towards the capital of British India, laying waste with fire and sword the populous and fertile district of Beerbhoom, and marking their course with the blackened ruins of smoking villages: that thousands of cattle were driven off to the highlands, the police completely mastered, and several English residents put to death, including two ladies. The feeble detachments of sepoy troops which were, in the first instance, hurried to the front to oppose the further advance of the frenzied multitude, were forced back by overwhelming numbers, and compelled to await the arrival of reinforcements. As these came up to the scene of action, the insurgents were mown down almost without resistance, for their only weapons were bows and arrows.

For four whole months these undisciplined barbarians continued to devastate the country. Repelled at one point, they turned up at another, easily out-marching regular troops, and dispersing only to gather together again on the flank or rear of the force with which they were unable to cope in the open field. At length a cordon of outposts was formed, and by degrees the Santals were pushed back to their native hills. Within the next three months tranquillity was restored, and thousands of the rebels were "peacefully at work upon a new road."

On the suppression of this singular rebellion, inquiries were instituted into its origin, and then it was discovered that, in

the beginning, nothing worse was contemplated than a march of the entire population to Calcutta to lay at the feet of the Governor-General a petition that had been rejected by the local authorities. In truth, the grievances of which this unhappy people complained had become perfectly intolerable. Their valleys were infested by Hindoo hucksters, who plundered that honest, truthful people without scruple or remorse.

"They cheated the poor Santal," writes the author of *The Annals of Rural Bengal*, "in every transaction. The forester brought his jars of clarified butter for sale; the Hindoo measured it in vessels with false bottoms: the husbandman came to exchange his rice for salt, oil, cloth, and gunpowder; the Hindoo used heavy weights in ascertaining the quantity of grain, light ones in weighing out the articles given in return. If the Santal remonstrated, he was told that salt, being an excisable commodity, had a set of weights and measures peculiar to itself. The fortunes made by traffic in produce were augmented by usury. A family of new settlers required a small advance of grain to eke out the produce of the chase while they were clearing the jungle. The Hindoo dealer gave them a few shillings' worth of rice, and seized the land as soon as they had cleared it and sown the crop. Another family, in a fit of hospitality, feasted away their whole harvest, and then opened an account at the grain-dealer's, who advanced enough to keep them above starvation during the rest of the year. From the moment the peasant touched the borrowed rice, he and his children were the serfs of the corn-merchant. . . . Year after year the Santal sweated for his oppressor. If the victim threatened to run off into the jungle, the usurer instituted a suit in the courts, taking care that the Santal should

know nothing of it till the decree had been obtained, and execution taken out. Without the slightest warning, the poor husbandman's buffaloes, cows, and little homestead were sold, not omitting the brazen household vessels which formed the sole heirloom of the family. Even the cheap iron ornaments, the outward tokens of female respectability among the Santals, were torn from the wife's wrists."

But in 1854 a wonderful change came over the country. In that year a railway was commenced, which for 200 miles was to skirt the Santal hills. Yet a few years later 20,000 labourers were needed in Beerbhoom alone to raise embankments, cut through eminences, fill up hollows, and construct many-arched bridges. The work was severe; but wages were high in proportion. There was employment for women and children as well as for men; "and in a few months the Santals, who had taken service, came back with their girdles full of coin, and their women covered with silver jewellery, 'just like the Hindoos,' as their astonished clans-people remarked." Here was a certain fortune for the free population. A whole clan would go off, bag and baggage, their bows and arrows in their hands, and the national drum beating in front; and after a few months of arduous toil would return with money in their purse and "on hospitable thoughts intent." It was far otherwise, however, with the bondsmen, who laboured without hope or reward, and without cessation or rest, and foresaw no termination to their hapless lot but in death.

It is not surprising, therefore, that an undercurrent of excitement should have agitated the Santal community during the cold weather of 1854-55. The rich determined to be no longer the dupes, as the poor resolved to be no longer the slaves, of the overreaching Hindoos. Representatives and exponents of the popular feeling are seldom wanting at such a crisis. In this particular instance two brothers stepped forward as the Heaven-appointed champions of the people, and produced a

quantity of scraps of paper in proof of their Divine mission. These slips were circulated throughout the country, just as chupatties were distributed throughout the North-West Provinces previous to the Mutiny, and prepared men's minds for something eventful. Their object appears to have been to attract the attention of the English Government; but as no acts of violence were reported, and the collection of revenue was not disturbed, no notice whatever was taken of the Santal "Fiery Cross." They then applied to the Commissioner to redress their wrongs; but that functionary was busied about too many things to pay much heed to the complaints of the barbarians, men of far less consequence in his eyes than the tax-paying Hindoos of whom they complained. "God is great," sighed the Santal leaders; "but He is too far off." So they took the matter into their hands, and despatched emissaries to every valley with branches of their national Sal-tree. The people obeyed the signal, and, armed with bows and arrows, gathered in tens of thousands to the place of rendezvous. There was then nothing to be done but to move onward; and on the 30th of June, 1855, the vast horde set out for Calcutta, with the result which has been described.

What are these Santals? From what race are they sprung? How is it that dwelling in the midst of Hindoos they come to differ so widely in manners, customs, religion, and language? And, above all, how does it happen that a district barely a hundred miles from Calcutta should have been scarcely better known to the British Government than the independent State of Bhootan, or than the trans-Himalayan Tartars?

In the hill country the aboriginal race has undergone but little change for many centuries. It still numbers from a million and a half to two millions of human beings, bound together by all the ties that make a common brotherhood. The Santal territory is, yet, no mere strip of land, but incloses an area equal to that of England and Wales. It measures 400 miles in length

by 100 miles in breadth, and comprises 40,000 square miles. Of their forefathers they know nothing, beyond a tradition that they are descended from a single pair produced from two ducks' eggs laid upon the water-lily. The Creative Power, they affirm, was set in motion by the Great Mountain, who in the beginning stood alone in the midst of the waters. The rocks, being raised up by the prawns, were speedily covered with earth and grass, and the man and the woman multiplied so exceedingly that they were constrained to go forth and people the earth. It is therefore probable that the Santals originally came from the north-west, from the foot of the Himalayas, as did the Aryans in after-times.

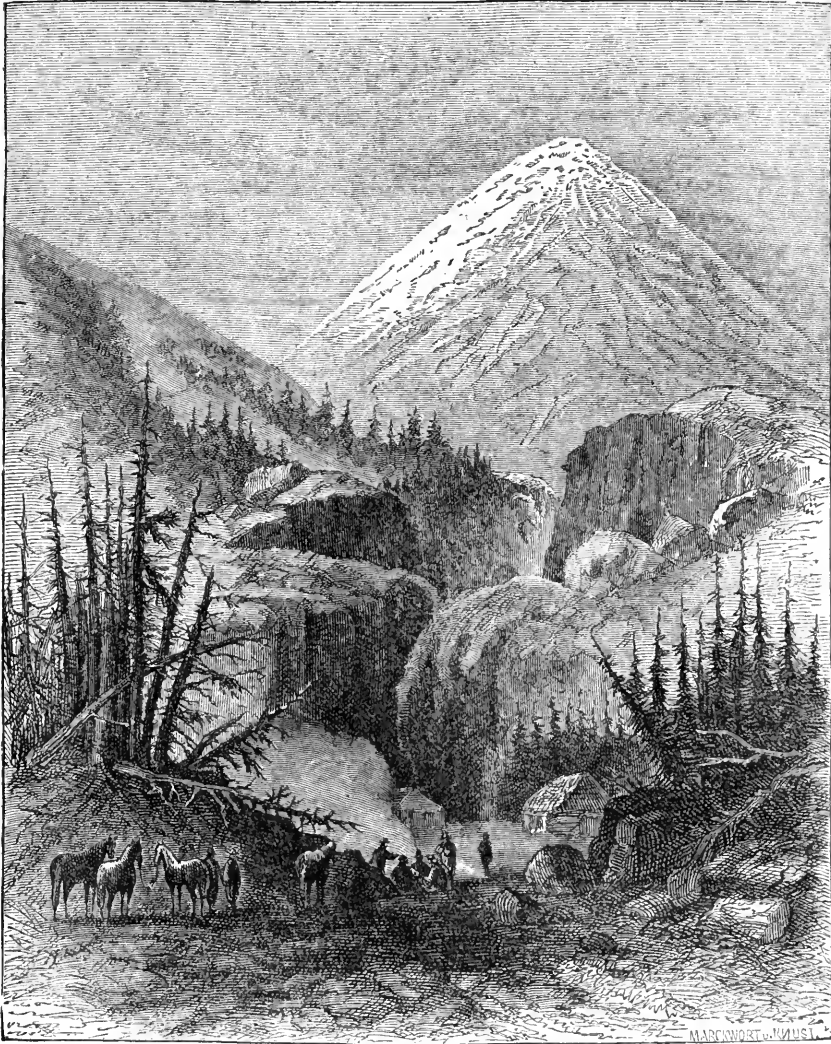
Their religion is one of terror. They worship only demons whose malfeasance they strive, by various mysterious rites, to avert from their fields, their cattle, and their families. Each household has its own deity, whose name and attributes are kept so secret that the god of one brother is unknown to another. By the side of every village stands a grove of Sal-trees (*Shorea robusta*), deemed the "favourite resort of all the family gods of the little community." Above the family comes the tribe, each with its peculiar deity, to whom only male animals are sacrificed. The seven tribes, in their turn, are absorbed in the race, and the tribe god veils his face before the Great Mountain, the national god of the Santals, who is worshipped with blood, and formerly with human sacrifices. He is, in fact,

identical with the ancient Sanskrit Rudra, or the Siva of the mixed population of Lower Bengal.

Caste is unknown. All work, hunt, worship, and eat in common; but no man may marry a woman of his own clan, for more reasons than one an admirable prohibition. "The children belong to the father's clan, and the daughters, upon marriage, give up their ancient clan and its gods for those of their husbands." The Santal, though partial to agriculture, is essentially a man of the woods and addicted to the chase, which he follows with equal courage and address. Of a cheerful and sociable disposition, he is apt to indulge too freely in hospitality, and to sacrifice on a lengthened debauch the produce of a year's fitful industry. Honest, truthful, and simple-minded, he was long the victim of the wily Hindoo, until oppression became unbearable, and the exodus was brought about of which a brief description was attempted at the commencement of this article.

From the foregoing remarks it may be judged how little, even now, we really know of our Indian fellow-subjects. We have hitherto been content to divide them into Mohamedans and Hindoos, carefully classifying the latter into four castes. We have recognised, indeed, the difference of religion, but scarce a passing thought have we paid to the difference of race. The oversight, however, led in a great measure to the Santal insurrection, and underlies much of our indisputable unpopularity, in spite of our justice and active benevolence.





POPOCATAPETL, THE SMOKING MOUNTAIN.

PO-PO-CAT-A-PET-L means the smoking mountain. It is the name of a famous volcano in the interior of Mexico. Its height has recently been given as 18,362 feet above the sea, and it has therefore the distinction of being the highest point of land in North America. It is within nineteen degrees of the equator

and yet, by reason of its great height, it is covered with perpetual snow. It cannot be called an active volcano, having had no eruption of fire for more than three hundred years, but there is very often a light cloud of smoke slowly drifting away from it. It is now eighteen years since I have seen it, but, as I recollect it, there were some points of view from which we could see the crater

lying a little lower than the peak, and looking like a blot on the snowy surface. It seemed to me like a contradiction in terms to call that beautiful white snowdrift up in the sky a volcano, for a volcano is usually associated with fire and brimstone and destruction ; but that snow peak flashes in the sun like the illustration of all that is pure, glorious, and heavenly. It really looks as if it was something of the earth that was brighter and better than all the rest.

At first you would think it was a cloud, but an hour afterwards it stands just the same, and the next day it is the same, and the next year the same. You may wander fifty miles away from it, but whenever you look back, it is in its place. Clouds will shut it away from you, but the clouds will part, and there the mountain stands like a glorious presence.

The mountain rises out of the high tableland of Mexico. This tableland is itself seven to eight thousand feet above the sea. So that it follows that the top of Popocatepetl never can be seen more than eleven thousand feet above the eye of the observer. About two hundred miles nearer to the coast is the volcano of Orizaba, whose true height is nearly the same as that of Popocatepetl, but it seems very much higher because its top can be seen from the very sea-shore.

Popocatepetl is about twenty miles in a direct line from the city of Mexico. That city lies in a circular valley belted around with mountains. There are some other snow peaks besides Popocatepetl in this belt. One of the most beautiful of these mountains is called Istacchuatl (pronounced Iz-tas-si-what-l), meaning the white woman. This is a snowy range whose four prominent summits give to the whole mass the appearance of a gigantic woman clothed in white reclining upon her back. On any clear day these snow mountains are in easy view of the city, and form a marked feature of the scenery.

The ascent of Popocatepetl is not considered a peculiarly dangerous adventure, and yet it is not an affair of frequent occurrence. The chief difficulties arise from the

extremely rarefied air, and from the uncertain footing in the snow, and in the dusty soil of ashes or scoria before the snowline is reached. Progress is thus rendered very slow and wearisome, and, to many very painful. Coming down is the reverse.

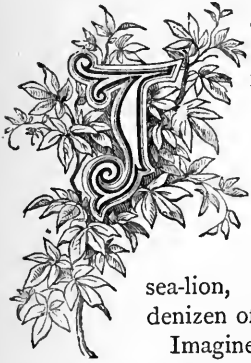
A party of English travellers stated that they were able to take their horses within two miles of the snowline ; and that in four and a half hours after reaching the snow they arrived at the edge of the crater. Near the top they found respiration so difficult that they were obliged to rest every few steps.

They ascertained by the echo that the crater is nearly a mile across. It is cuplike in form, and great icicles hang from the ledges ; strong sulphurous fumes attack the nostrils ; indeed, the sulphur is everywhere visible, particularly around the points where columns of vapour rush out ; these make a noise similar to steam escaping from a boiler. There is a constant fall of rocks and stones from the precipitous sides of the crater, whose noise, echoed and re-echoed by the hollow walls, keep up a din similar to a roll of musketry.

In 1864, when a severe earthquake injured the towns between this mountain and the Atlantic, it was violently agitated, and shook from its sides huge rocks, though without increasing its column of vapour.

The ascent of Popocatepetl by Europeans was first made in 1522 by Francisco Montaña, who was sent by Cortez to explore the mountain, and not only reached the crater, but had himself let down into it by ropes to the depth of seventy or eighty fathoms. Three years before this, when Cortez was on his bold march to the capital, the mountain was in a state of extraordinary activity, and ten daring men, under the lead of Diego de Ordaz, were sent to make the attempt of climbing to the summit. They boasted of having accomplished the feat, and their leader was permitted by the Emperor Charles V. to emblazon a flaming volcano on his escutcheon. In 1827 the brothers Frederick and William Glennie reached the summit and determined its altitude.

SEALS AND SEA LIONS.



N one of the "Davis Lectures," delivered at the Zoological Society's Gardens, we find perhaps the best account ever published of the sea-lion, that extraordinary denizen of the Polar regions.

Imagine a sea-lion and a seal placed side by side, as they may often be seen in summer at the Zoological Gardens, when the sea-lion is sitting on the stone edge of the pond, and the seals are basking on the grass in the adjoining enclosure. The former might easily be mistaken for a terrestrial animal: the head, with its pointed ears, large eyes, and lips thickly set with stiff whiskers, is set upon a long neck, and closely resembles that of a Polar bear; the body is raised several inches from the ground upon the hind and fore limbs, even when at rest; and it is only when attention is called to the feet that terrestrial resemblances cease, and modifications for aquatic life are seen to begin.

The seal, on the other hand, resembles a well-filled sack. His head is short and broad; his neck can scarcely be distinguished from his body, which is so cylindrical that the diminutive hands can scarcely touch the ground, unless the body be flattened for repose; while the hind feet, connected by integument with the tail, are stretched out backwards. It will be seen at a glance that such an animal is not adapted for movement on land; and, indeed, his attempts in that direction are limited to a series of ungraceful bumps as he wriggles over the sward, no true seal being able to raise his body from the ground, and only one or two being able to make any use of their hands on land. In the water, however, the proportions of his body are admirably adapted for extreme activity. Though the head,

neck, and trunk are short, the loins are as much elongated as they would be in a terrestrial carnivore. The vertebral column, united to the hind limbs, and moved by long and powerful dorsal muscles, can be used by the animal precisely as a porpoise uses his tail; while the width and mobility of the membrane that webs the toes admits of his opening and shutting them so as to use them like the blades of a screw-propeller. By these provisions he can work his body to right and left, or up and down, at pleasure; rising to the surface, diving to the bottom, or making his way in and out of holes under water, with wonderful precision and agility; while the hands, that seemed so useless, form an admirable system of steerage.

The proportions of the sea-lion are very different. Actual measurement shows that the head and neck, which occupy one quarter of the total length of the body in the seal, here occupy one third. The hind-quarters, on the contrary, are proportionally short, and curve sharply downwards. In the water, however, he is to the full as active as his relative, as he has not only his hind-quarters to propel himself with, but his powerful oar-like anterior extremities as well. Moreover, his whole body is singularly lithe and flexible, so that he can run nearly as fast as a man can, even over rough ground; indeed, it has been said on good authority, that in a thick bush the sea-lion has a decided advantage—can climb rocky ledges and steep slippery banks, and assume both in water and on land an endless variety of attitudes.

The sea-lion, having caught its prey, holds it in its mouth by means of its powerful canines and incisors, and, raising its head, swallows it whole. When it has caught a fish too large to be thus disposed of, it has been seen to give its head a sudden twist, so as to break off a portion,

which it swallows rapidly. It then dives into the water, picks up the other portion, and repeats the tearing process until the last fragment is devoured. Their food consists of fish, mollusca, crabs, and sea-fowl, especially penguins, which they catch in a most ingenious way. They lie motionless in the water, with only a small portion of their nose above the surface. This attracts the attention of the bird, which mistakes it for something eatable, and, approaching to catch it, falls a prey to the craft of its adversary.

It is a curious and remarkable fact that a quantity of pebbles are always found in their stomachs. It is said that more than twenty pounds have been taken from an old male of one of the larger species, and that individual stones weighed half a pound at least. On the Californian coast, the same peculiarity has been observed with regard to the sea-elephant. The sailors there believe it to be *ballast*, and assert that it is swallowed when the animals are "going down"—*i.e.*, returning to the sea after their sojourn on the shore; and one traveller asserts that he has seen a female instructing her cub to swallow a proper quantity. It has further been stated that when they return to land, they eject it; and an officer in the navy assures me that he has seen a sea-lion at the Falklands engaged in the operation of "discharging ballast."

Under the skin there is found, all over the body, a coat of fat—similar in nature, and no doubt in use, to the blubber found under the skin in whales and porpoises. It is the skin and the subjacent fat that render these animals so valuable commercially; and a fatal gift it has been to them.

The male seal does not attain his full size till he is about six years old, and the female when she is about four. There is a remarkable disparity of size and build between them. In a species where the male would be seven or eight feet in length, and weigh 500 to 700 lbs., the female would not be more than four feet long, and weigh from 80 to 100 lbs. The teeth, also, in the female are much smaller, and their skulls

do not develop the large crests that are always found in those of old males.

Their favourite places of resort are solitary islands, either far out at sea, or at any rate clear of an inhabited coast. I do not mean by this to imply that they never are found elsewhere, but they do not assemble in any number except on such places. It has been affirmed that the same seals return year after year to the same rock; and the natives at one of the Prybilov Islands affirmed that an old male seal, whom they recognised by the loss of one of his flippers, had returned seventeen years in succession. Indeed, it has been stated that they become so much attached to their stations as to prefer death to the loss of them.

The ground occupied by them—called a rookery—is the space between the high-water line and the foot of the cliffs. The sandy beach is used as the playground for the pups, and the uplands at the top of the cliffs as their sleeping-place. The arrangement of their dominions is adopted by common consent, and enforced by the elders with much severity. The old males and the full-grown females are alone allowed upon the rookeries; the young seals swim about in the water, or, in favourable weather, retire to the uplands behind the rookeries, sometimes at the top of cliffs 120 feet high. Passages through the rookery are appointed, and regarded as neutral ground, through which a continuous line of seals moving down or up may be seen. So long as they keep the path, they are unmolested, but woe betide any unfortunate youngster who, prompted by curiosity, may stray to the right or left. The natives of the Prybilov Islands call the old males "married seals," the old females "mothers," and the young males "bachelors."

During the winter months, the rookery is entirely deserted, except by a few stragglers. Probably these annual migrations are more regular in one place than in another, depending on the temperature. The Prybilov Islands are completely deserted in the winter; but numbers of

sea-lions remain all the year round. At the beginning of spring—usually in the first week of May—as soon as the shore is free from ice, a few old veteran males—the chiefs of the herd—make their appearance in the water near the island, and swim about with much caution for several days. If all appears safe, they climb on to the rocks, and examine the state of the rookery, carefully smelling about, with every appearance of shyness, and unwillingness to leave the water. These are the most adventurous and generally the oldest males of the herd—never less than six years old, and often three or four times that age. Between the first week of May and the 1st of June very few are added to the pioneers. Then, however, if summer weather has set in—which at the Prybilov Islands means a succession of warm, sunless fogs—the bull-seals come up by thousands, and locate themselves in advantageous positions for the reception of the females.

It appears to be well understood among them that each able-bodied bull is to have a piece of ground about ten feet square to himself, provided he can hold it against all comers. To maintain their position, they wage desperate conflicts, the opponents seizing each other with their powerful teeth, and tearing deep gashes in the body, or shredding the flippers into ribbon-strips. A veteran has been known to fight as many as sixty victorious battles for a coveted position on the water-line. The vanquished withdraws humbly, and is never followed by his conqueror, who sits complacently fanning himself with his hind flipper, awaiting the next attack. It is said that occasionally those few males who have been vanquished in all their encounters, and are therefore unable to obtain a resting-place or a wife, retire together to some distant beach, there to bury their shame, far from the society of their fellows, where they sit together gloomily, grievously wounded in body and in temper.

Between the 12th and 14th of June the first of the cow-seals come up from the sea; and the bulls signalize their arrival by a

universal, spasmodic, desperate fighting among themselves.

The cows—which form by far the largest proportion of the herd—arrive nearly all together; and those who have been fortunate enough to witness one of the annual migrations describe in glowing language the appearance of the vast herd at sea, leaping and plunging through the waves.

With the arrival of the cows begins the duty of the “bachelors.” They swim all day along the shore, escorting the females to the beach, and driving them up on to the rocks as fast as they arrive. Some of the older females seem to be aware that they are going home, and are on the lookout for some particular male. Such an one may be seen to climb the outlying rocks that overlook the rookery, calling out and listening, as if she expected a familiar voice to reply to her. As soon as a female has appeared upon the sand, the nearest male goes down to meet her, making a noise like the clucking of a hen. He bows to her and coaxes her, until he gets between her and the water, so that she cannot escape. His manner then changes, and with angry growls he drives her up to his resting-place.

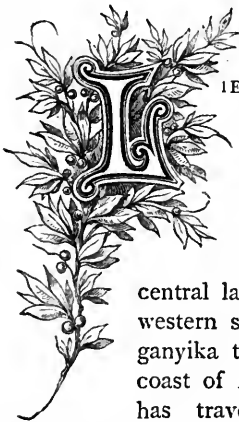
The mothers show but little fondness for their offspring; never caressing or fondling it as other animals do; but they can distinguish its cry among all the din of the thousands of precisely similar little creatures on the shore, and will on no account suckle any other pup than their own. It does not, however, appear that the pups know their own mothers. When they are about a month old, they take to the water; but their efforts are very clumsy at first, and they flounder about, thrashing the water with their fore flippers, quite unconscious of the use of their hinder ones. They scuttle out of the water after this first trial quicker than they got into it, and, after shaking themselves as a dog does, lie down to take a nap. When they wake, however, they appear to have forgotten their misfortunes, and tumble again into the sea, and frolic about in it all day long.

By the end of the first week in August, the young have all taken to the water, and the veteran males, regarding their duties as ended for the season, go down to the sea to feed and wash, the latter operation being quite as necessary as the former. Attention must here be drawn to the extraordinary fact that during the whole of the previous three months the males have never left their positions for an instant, night or day. During this long period, therefore, they have tasted neither water nor food of any kind. This strange abstinence would be remarkable enough under any conditions, but it is simply wonderful when we remember that during this whole time the bulls are in a state of restless activity, hardly quiet for a moment, night or day, jealously guarding the cows and families. When August comes, they are by no means so emaciated as might be expected; they have lost their fat, but are still in good flesh. It is thus evident that

they subsist by absorption, consuming the fat of their own bodies.

The young being able to take care of themselves, the rookery is broken up. This usually takes place about the end of July. The veteran males go into the sea, and do not, as a rule, return to the land at all. The vacant rookery is taken possession of by cows, pups, bulls, and "bachelors" of all ages.

After about three months of this peaceable existence the seals begin to leave. By the middle of November the greater number have departed. A few, however, stay till they are driven away by snow and rain, both of which are very disagreeable to them. To what precise locality they retire has not yet been ascertained. Those of the Prybilov Islands go towards the south, and those of the Southern Hemisphere probably towards the north, in order to preserve an equable temperature through the year; but how they live, and by what means they become so fat, we have yet to learn.



ACROSS AFRICA ON FOOT.

LIEUTENANT CAMERON is the first Englishman or European traveller who has crossed the whole breadth of the African continent in its

central latitudes, beyond the western shore of Lake Tanganyika to the Atlantic sea-coast of Lower Guinea. He has traversed, in performing

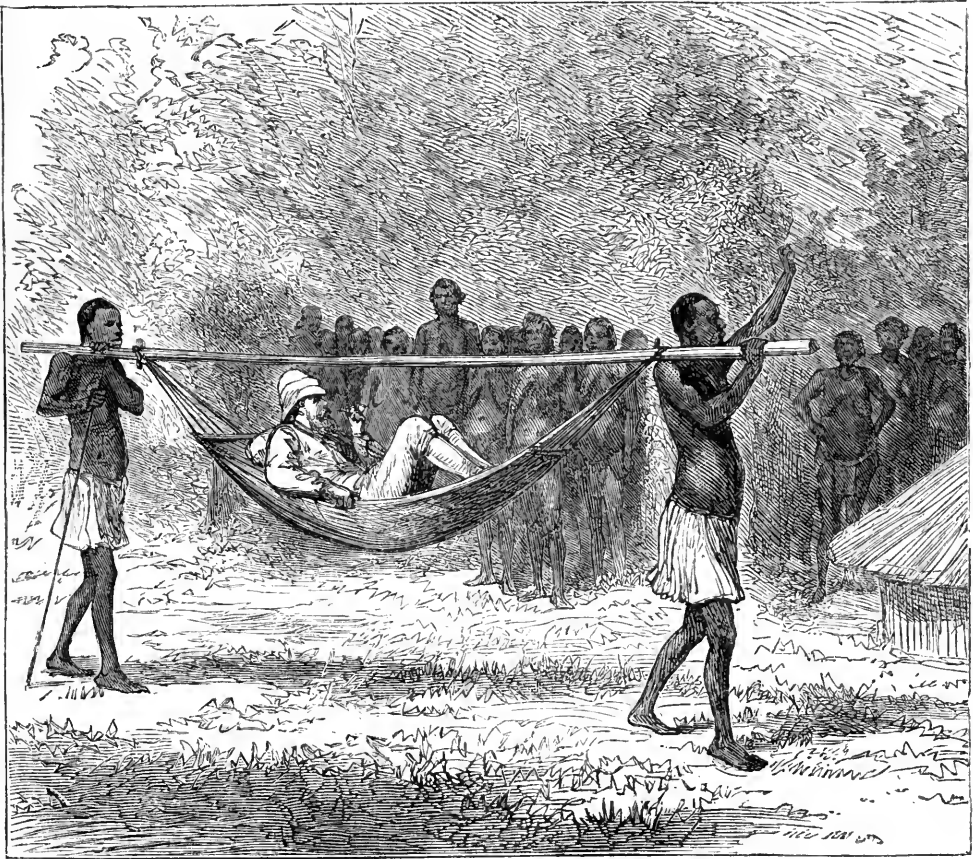
this feat, a distance of nearly 3,000 miles on foot, between the east and west ocean shores; but the most important part of his journeys lay in the central interior, west of the chain of lakes and rivers discovered by Dr. Livingstone, which Lieutenant Cameron has found to be connected with the great river Congo, issuing to the

Atlantic between Loango and Angola. The following are some particulars of his route:—

He left England in November, 1872, under the auspices of the Royal Geographical Society, in charge of the East Coast Livingstone Search Expedition. His companions were Dr. Dillon, Mr. Murphy, and Mr. Moffat, but two of them died, and the third was afterwards left behind. Cameron found that the lamented Livingstone's death had destroyed the original object of his journey. After aiding the faithful followers of Livingstone to reach the coast with his map and last journals, Cameron pushed on to Ujiji and secured other maps and two note-books which had been left behind. Sending these by reliable hands to Zanzibar, Cameron devoted two months of arduous and anxious labour to a survey

of Lake Tanganyika. His professional acquirements eminently fitted him for the task. It is not too much to say that his sketch-survey of that important body of fresh water leaves very little to be desired. Lake Tanganyika was visited by Burton and Speke in 1858. A partial examination led the former to conceive that the lake was a sort of drainage basin for the whole

river system of that part of Africa. Livingstone twice visited Tanganyika, but on both occasions he was suffering severely from illness, and though he suggested the probability of its having an outlet, his own observations only went to confirm Captain Burton's theory, for all the rivers that he noticed flowed into the lake. Cameron's more exact survey led to the



A LAME DAY.

discovery of an important outlet on the western side, flowing with a steady current in the direction of the Atlantic. This effluent, which is called by the natives the Lukuga, he found to be flowing from the lake with a full, steady current at the rate of a mile and a quarter per hour. Cameron drifted four or five miles with the current of the Lukuga, and then his boat was im-

peded by a mass of floating grass, which was stopped by an enormous growth of rushes. Though he could get no farther he saw floating logs carried into the mass and disappear, showing that the current was still running. The chief of the district, who seems to have been intelligent and friendly, assured Cameron that the stream flowed into the Lualaba, and the informa-

tion obtained from Arab traders not only confirmed this, but satisfied him that the Lualaba could be no other than the great river Congo. To the solution of this most important problem Lieutenant Cameron forthwith determined to devote himself.

He started then from Ujiji in May, 1874, with the view of proceeding down the outlet from Tanganyika to the Lualaba, and pursuing its course, supposing it to be the Congo, as far as the west coast of Africa. In the outset of his journey from Ujiji he went to Nyangwè, by what he supposed was nearly the same route as that which Dr. Livingstone followed. He found that Livingstone had placed Nyangwè twenty-six miles too far to the west, and that thence the Lualaba, instead of leaving its westing and turning to the north, really leaves its northing and turns to the west. Farther down its course it is reported to flow west-south-west. Another river, said to be as large as the Lualaba at Nyangwè, joins it from the northward a short way farther down. The Lualaba at Nyangwè is only 1,400 feet above the sea level. It lies in the centre of an enormously wide valley, which receives the drainage of all that part of Africa, and is the continuation of the valley of the Luapula. The true Lualaba is to be distinguished from the river to which Livingstone first gave that name. It runs north-north-east through two large lakes, named Lohemba and Kassali; the latter also receives the Lufira river. Between the Lufira and the Lualaba lies Katanga, a district rich in copper and gold, and with a marvellous abundance of game, if all reports be correct. Cameron went on till he arrived at the residence of a great native chief, Kasongo, who seems to be the most powerful monarch in that part of Central Africa. His country is called Urua.

From Nyangwè to Kasongo's his route was principally up the eastern side of the valley of the Lomâmi, which is a minor valley in the great one of the Lualaba. The Lomâmi has no connection with the Kassabè, but is a separate and independent

stream. It receives many brooks from the eastward, but no large rivers on that side. On the west it receives the Luwembi, coming from a lake called Iki, which is probably the Lake Lincoln of Livingstone. That lake receives the Lubiranzi and Luwembi, both considerable rivers. After leaving Kasongo's, Lieutenant Cameron crossed the sources of the Lomâmi and Luwembi. He afterwards passed across a table-land with numerous streams, some going to Kassabè and some to the Liambai, or Liambeji, as it is also called by the natives. He descended from this elevated plain, following the Lumèji, a very considerable stream, and an affluent of the Loèna, which falls into the Liambai. The Kassabè was of a distance of from seven or eight to twenty miles to the north of his march, which there maintained a generally westerly direction. The Kassabè runs up between the frontiers of Lovâlè and Ulûnda. It seems clear, notwithstanding some confusion of names, that the Luvar of the Portuguese is our Urua, and the Urua of the natives also. Lovâlè is an entirely different country, lying between 20 degrees and 22 degrees east longitude, peopled by a different race, speaking another language. Cameron finally made his way to the Portuguese settlement of Benguela, on the west coast.

The interior is described mostly as a fertile and healthy country of great natural richness. Cameron has a specimen of light bituminous coal. Other mineral specimens he has brought home are hæmatite and speculum iron, cinnabar, and malachite. He believes that gold, copper, iron, and silver are abundant; and he is confident that, with a wise and liberal, not lavish, expenditure of capital, one of the greatest systems of inland navigation in the world might be utilised. It would, he thinks, soon repay any enterprising capitalists that might take the matter in hand. Nutmegs, coffee, semsen, groundnuts, oil-palms, the mpafu (an oil-producing tree), rice, wheat, cotton, all the productions of Southern Europe, indiarubber, copal, and sugar-cane are the



CAMERON CROSSING THE LUWATI ON A FALLEN TREE-TRUNK.

vegetable productions which could be made profitable. Many of them exist there now, and wheat is cultivated successfully by the Arabs, as well as onions and fruit-trees brought from the coast. A canal of from twenty to thirty miles across a flat, level country would connect the two great systems of the Congo and the Zambesi, water in the rains even now forming a connecting link between them. With a capital of from £1,000,000 to £2,000,000 to begin with, a great company would have Africa open in about three years, if properly worked. The diplomatic difficulties, however, might be far greater than the physical ones.

Lake Tanganyika, that grand piece of inland water, covering more than ten thousand square miles, had been imperfectly known, except in the neighbourhood of Ujiji, on its north-eastern shore, till Lieutenant Cameron explored it with two boats in April, 1874.* He coasted along the east side of the lake, from Ujiji, to its southern extremity at the mouth of the Kirumbwe river, then crossed over to the west shore, which he followed northward to the Kasenge isles, beyond the Lukuga outlet of the lake; and it was on this occasion, on May 3rd, 1874, that he examined the Lukuga, discovering its westerly flow and its connection with the Lualaba of Livingstone. This boat expedition was the means of gaining a tolerably correct acquaintance with both shores of Tanganyika for three fourths of its length, which had before remained almost unknown. It would not be too much to say that such knowledge is likely to be of immense benefit to the progress of commercial intercourse with Central Africa, as the navigation of that lake, now that the road to Ujiji from the sea-coast is

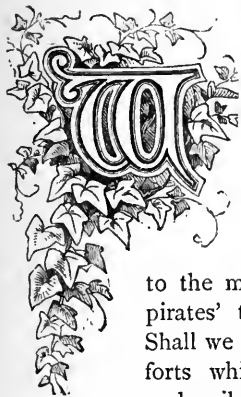
familiar to European travellers, should soon be established with the aid of steam-boats.

The reader can imagine how welcome a sight were the humane and civilized faces that met Cameron as he approached the Portuguese settlement. His difficulties and troubles, however, increased the nearer he came to his journey's end; and finally he and one or two of his followers had to make a rush for the coast. To crown his misfortunes, scurvy attacked him at last, and he did not reach Benguela one day too soon to receive that medical treatment in which lay his only chance of life. The rest our readers are familiar with; Cameron's warm reception by the Portuguese authorities, the "Cameron! My God!" of the British consul at Loanda when the traveller went to report himself from Zanzibar, "overland," the shipping of his men to the East Coast, his return to England in the April of 1876, and the enthusiastic welcome he has since received. He has performed a feat which proves that the ancient spirit is not dead among us. It was, however, more than a mere feat; he has added materially to our knowledge of that part of Africa already known, opened up a region not before traversed, made a most important contribution to the hydrography of the continent, and specially, from a geographical point of view, has registered a long series of levels and other observations that enable us definitely to settle the *contour* of the surface from east to west. Above all does Cameron deserve the thanks of the civilized world for his exposure of the horrors that are being daily enacted by the slave-hunters all over Central Africa, turning one of the finest regions on the face of the earth into a land of desolation.

* A report of his exploration, with a map, will be found in the *Geographical Magazine* of January and March, 1875.



A SAIL AMONG THE BAHAMAS.



WE pray you, kind reader, to choose for us tourists at Nassau, in the Bahamas, how we shall spend another one of our days. Shall we ride to the mysterious caves where pirates' treasures lie hidden? Shall we walk to the venerable forts which alert Englishmen and wily Spaniards have so many times seized from each others' clutch? Shall we go to the morning market to which natives of neighbouring isles bring all things curious from air, land, or sea? Or, finally, shall we take a sail over the Bahama waters, not with murderous intent upon their finny tribes, but just to see what we can see? A sail it shall be!

We start from the Royal Victoria (which ranks as high among hotels as its namesake among women), to walk the short distance down to the wharf, feeling a half-uncomfortable sense of conspicuousness because of our white faces, as black is the fashionable colour with five-sixths of the inhabitants of this island. It is a strange and beautiful scene through which we are passing. Streets, arches, and steps are cut in the gleaming white coralline limestone which forms the island; houses are built of the same dazzling material, sometimes subdued by a light pink or cream-coloured *stucco*; and from their shuttered balconies peers forth now and then some curious beauty in true Spanish fashion. Surrounding gardens are radiant with carmine-red, *ponsetta* trees, golden clusters of the mammoth *jessamine*, white bells a foot long, swaying from high *daturas*, quaint, leafless *candelabras* of the *frangipani*, cushioned with odorous masses of pink blossoms, scarlet *hibiscus* in wild profusion, and numberless smaller shrubs and plants; while perfumes of orange

blossoms, and a thousand other sweets, well nigh intoxicate us. We are beset by fruit-sellers, bearing on their erect heads bananas, *sappodillos*, oranges, star apples, *shaddocks*, grape-fruits, etc., all to be bought for a mere song. After satisfying them by purchasing our supplies, we hasten on to our yacht. As we push out from under the shadow of cocoa-nut palms into the harbour, a group of half-grown negro boys throw off their upper garments and spring after us into the water, shouting, "Geem me a small dive, boss." We pitch in some coppers, after which these mermen, who are exactly as much at home in the water as on land, successfully dive to the bottom, coming up with them between their teeth, and now begging for a "chuck" (a small piece of silver). Their lithe, shining black forms are darting down for it like great ugly eels, as we sail away in the opposite direction. As we look back the town forms a striking picture, rising from the water at just such an angle as to exhibit its every house to the greatest advantage; in its foreground, huge black soldiers from the garrison are gorgeous in *Zouave* uniforms of yellow, red, and white; stately *negresses*, with their snowy, trailing muslins, and scarlet or orange turbans, are sweeping in and out among the shops; to the right a turf-covered esplanade, mounted with cannon, stretches down to the ancient battlements of Fort William Henry, from which hang flags to signal that three vessels in distress are sighted to the north-west. As smooth as a lake is Nassau Harbour, entirely protected as it is from the ocean's furies by a long, narrow island lying about half a mile to seaward in front of the town. But ere long we shall round yonder fine lighthouse, and sail through buoys on which pelicans and other sea-fowl quietly remain, too tired after their long flights to be frightened away, onward and onward to the

tossing sea—that sea which tries men's souls and stomachs. It seems a little lonely out here after the sociability of the harbour, where two British men-of-war, and smaller vessels from Russia, France, the United States, etc., are surrounded by numberless island sails. Fifteen years ago you would hardly have failed to sight there a Confederate blockade-runner, but now, except yonder blackened hulk of a proud vessel which her drunken officers ran ashore before she was well out of the harbour, they exist no more than do the perishable fortunes here made through them.

Ere we sail away from the shallow waters just outside the island bar, and in this momentary calm, take, we pray you, the water-glass, and look down through twenty-five feet of liquid malachite into one of Neptune's pleasure gardens. See the graceful branching corals, through which sky-blue fishes are playing hide and seek with golden ones. Observe the delicate network of purple and yellow sea fans, and miniature willow trees of bright lilac hues. Notice the soft growth of sponges, over which nameless crustaceans are creeping, and the gay red sea-mosses floating like banners from every rock. Indeed, the air is full of your admiring "oh's" and "ah's." If you covet any of these beauties, you have but to say so, and our coloured captain and sailors spring from the boat, disappear in an instant, and come up dripping, treasures in hand, with the ever-ready exhortation to each other, "don't broke 'em." All perils of sharks, devil-fish, and other undesirable acquaintances which haunt these waters are as nought to them by the side of the charms of rum, into which—oh, blasphemous transformation!—your reward-money enables them to transmute every beauteous coral, sea-fan, etc. If the fee is not fairly divided, you may hear one negro call another a "greedy choke puppy," which politeness is returned with a "you's a old jaw me dead" (too great a talker); soon all discords are lost in some rhythmic melody, probably about Jacob's ladder, in which each joins with a hearty good-will.

A sail! It is a sponge ship bringing in its cargo from the abundant beds a few miles out. All varieties have been brought up by its indiscriminate rakes, from those so coarse as to be worthless except for spreading on tropical vegetable gardens, to keep the soil damp, through all the finer grades of commerce, up to the frail, exquisite lacework of the tubular glass sponge. The evil odour which makes us urge our captain onward will be lost after soaking them awhile in cages subject to the action of the tides, and after bleaching them. Even then they will sell in Nassau at rates cheap enough to cause a twinge of regret to former patrons of New York drug stores. We are approaching an uninhabited island or key, but to our disappointment there is no growth of rushes around it, as there must be about the one wherein we have been hoping (?) ever since our arrival in the Bahamas to find a fortune. Thereto hangs a tale. A banker of Nassau, too shrewd to be imposed on, and too honest to tell us that which he considered unworthy of belief, informed us that a sailor dying in England confessed to have been one of the pirate crew which, under Blackbeard, haunted these waters, and which here swooped down on unsuspecting prey from their watch in those ancient martello towers we have just passed on New Providence Island. The sailor affirmed that in a time of danger, just before their final dispersal, they cut a passage through the thick rushes that surround one island (and one only) of the Bahamas, and left hidden for safety in its central crater-like depression thirty women and the gold and silver of the band. Of course the pirates were never able to return for them. Soon after this confession a ship and its company came to the islands, cruised around till they found the one surrounded with rushes, and landed and discovered thereupon the crater-like depression described. A more thorough search was even rewarded by finding human skulls, which might have been those of the women; but gold and silver found they none, and were driven off

by the fierce tropical sun ere their cupidity was appeased. Further the record saith not. "But *we* may find something better than filthy lucre by landing on this island!" exclaims our naturalist companion, whose enthusiasm always quotes shells, etc., at rather higher than market rates. So, after a momentary reluctance on the part of the ladies, we are all borne ashore in the strong arms of our swarthy sailors. Just ahead of us a straw-coloured crab as large as your hand is straddling off with his eyes advanced an inch from his head at the end of horns. How quickly he draws them back into their sheaths at sight of us giants! Here lies a king conch-shell, lined with an exquisite pink, which, once landed in France, would be cut like many of its mates, into the lovely cameos we all admire. To think that, once the trumpet of Triton, this shell in this locality should only be tossed disdainfully on a waste heap after its occupant has been made into—conch fritters!

The uses of adversity are as blessed in the conch as in the oyster; the pearl resulting from the irritation of the latter is of a beautiful sunrise tint; scarcely less lovely are the fawns and golden browns which line the queen conch. "A wentle-trap! a wentle-trap!" shouts our naturalist. And when we have stupidly exclaimed, "A *what*?" he explains, to our amazement, that the rare shell he holds in his hand, during the shell mania in England, would have brought forty guineas; "a *carinasia*," he continues, "used to command one hundred guineas; a *conus gloria maris*, fifty pounds; a ——" but we escape from his Latin to fill our baskets with less rare but equally beautiful "sunbeams," "bleeding teeth," "cocked hats," tiny pink mussels, like a baby's finger-nail, dainty rice-shells, from which the noted Bahama shell-work is mainly made, and many another beauty in scarlet, mauve, and yellow. Now the bristling ball of the sea-urchin (the lowest creature in which a dental apparatus appears) engages our attention; and again we pause over a bed

of cowries, which are used as currency in Africa, and of which sixty tons yearly have been taken into Liverpool, to be sent thence to the African dependencies of England for barter.

Again we trust ourselves to our sable bearers, who safely deposit us in the tipping shell of our yacht, which now flies in and out among many of the neighbouring quays. We are not provisioned for a sail long enough to see the immense ponds of salt water which Turk's Island and Anagua steal from the sea to give to the air—finding a rich reward in the prime salt which the evaporated water leaves behind, and which has given these islands a world-wide fame. Nor can we to-day reach Cat Island, where first landed Columbus, the hero to whom the Bahama Islands have reared on Nassau's most conspicuous site their only statue.

As we sail homeward we descry an unusual activity in the harbour. Every craft seems to be making hurried preparations for departure. Our captain asks an outward-bound vessel, "What's up?" and translates the nautical reply, so that we understand a West Indian ocean steamer is on the rocks three hundred miles to the southward. "Der won't be a boat in de harbour big as a tub to-morrer mornin'," says one sailor. And while some of us land-lubbers are wondering of what use a boat as small as a tub could be in helping a mammoth ocean steamer off the rocks, the true object of all this eagerness is flashed upon us by the whisper, "salvage money." Our sailors feel the prevailing contagion, and are in such haste to start off for a peck at the prize—money which Government awards to all those who assist in saving cargoes—that they are straining every sail to land their passengers. The boat careens till the sea-level is higher than the head of the tallest of our number. "Steady, boys, steady! human life *has* a value, secondary though it be to that of money"— But now she rights herself, and cleaves her conquering way with one queenly sweep up to the wharf.

A DISASTROUS RETREAT.



THE story told by Dr. Brydon is one of which history has few parallels. A British army, consisting of more than four thousand fighting men and twelve thousand camp followers, had, as he confusedly related, disappeared in a few days. Some had perished in the snow; others had been destroyed by the knives and the jezails of the enemy; and a few had been carried into captivity, perhaps to perish even more miserably than their unhappy comrades who had died in the deep passes of Koord-Caubul, Tezeen, and Jugdulluck.

On the 6th of January, 1842, the army commanded by General Elphinstone, which, for sixty-five days, had been enduring such humiliation as never before had been borne by a British force, prepared to consummate the work of self-abasement by abandoning its position, and leaving the trophies of war in the hands of an insolent enemy.

About half-past nine the advanced guard moved out of the cantonments. The English ladies and the children were with it; for it was supposed to be the place of safety, if safety could be found amidst the certain horrors of this perilous retreat.

It was a day of suffering and confusion, presaging worse suffering and confusion to come. The advanced-guard under Brigadier Anquetil moved out with some order and steadiness; but in a little while the rush of camp-followers destroyed all semblance of military array. They mixed themselves up with the soldiers—a vast overwhelming assemblage of ten or twelve thousand men. Not a mile of the distance had been accomplished before it was seen how heavily this curse of camp-followers sat upon the doomed army. It was vain to attempt to manage this mighty mass of lawless and suffering humanity. On they went, struggling through the snow—making scant

progress in their confusion and bewilderment—scarcely knowing whether they were escaping, or whether they were rushing on to death.

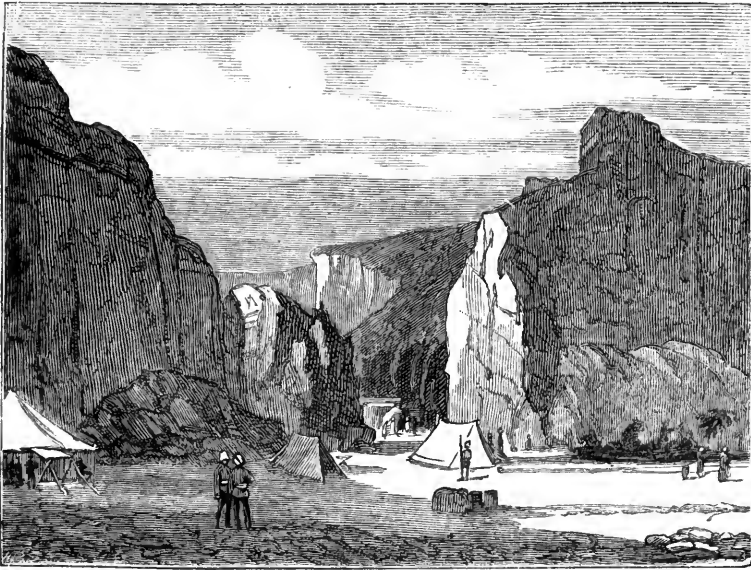
The main body under Brigadier Shelton, with its immense strings of baggage-laden cattle, was moving out of the cantonments during the greater part of the day. The rear-guard manned the cantonment-walls, and looked down upon a scene of uproar and confusion beyond the imagination to conceive. The enemy, as the day advanced, began to be busy at their work of plunder. Dashing in among the baggage, they cut down the helpless camp-followers, and carried off whatever they could seize. The snow was soon plashed with blood. From the opening in the ramparts to the bridge across the river streamed one great tide of soldiers and camp-followers, camels and ponies; and at the bridge there was an enormous mass of struggling life, from which arose shouts, and yells, and oaths—an indescribable uproar of discordant sounds; the bellowings of the camels, the curses of the camel-drivers, the lamentations of the Hindostanees, the shrieks of women, and the cries of children; and the savage yells of the Ghazees rising in barbarous triumph above them all.

The night was one of suffering and horror. The snow lay deep on the ground. There was no order—no method in anything that was done. The different regiments encamped anywhere. Soldiers and camp-followers were huddled together in one inextricable mass of suffering humanity. Horses, camels, and baggage-ponies were mixed up confusedly with them. Nothing had been done to render more endurable the rigour of the northern winter. The weary wretches lay down to sleep—some never rose again; others awoke to find themselves crippled for life by the biting frost.

The morning dawned ; and without any orders, without an attempt to restrain them, the camp-followers and baggage struggled on ahead, and many of the Sepoys went on with them. Discipline was fast disappearing. The regiments were dwindling down to the merest skeletons. It was no longer a retreating army ; it was a rabble in chaotic flight. The enemy were pressing on our rear ; seizing our baggage, capturing our guns, cutting up all in their way. Our soldiers, weary, feeble, and frost-bitten, could make no stand against the fierce charges of the Afghan horsemen. It seemed that

the whole rear-guard would speedily be cut off. All thoughts of effectual resistance were at an end. There was nothing now to be hoped for, but from the forbearance of the Afghan chiefs.

Here, at Boot-Khak, Akbar Khan appeared upon the scene. With a body of some 600 horsemen he rode up, and Pottinger saw him in the distance. Believing that he was a Sirdar of note, the political chief despatched Captain Skinner, with a flag of truce, to communicate with him. Skinner brought back a friendly message. The Sirdar, he said, had reproached the



ENTRANCE OF THE KHYBER PASS.

British authorities for their hasty movement on the preceding morning ; but added that he had come out to protect them from the attacks of the Ghazees. His instructions were to demand other hostages, as security for the evacuation of Jellalabad ; and to arrest the progress of the force, supplying it in the interval with everything it required, until such time as intelligence of the retirement of Sale's force should be received. "It was too late to send a reply," wrote Pottinger, in his report of these proceedings, "and nothing was determined—but some

persons persuaded the General to abandon his intention of marching by night." And so the doomed force, whilst the enemy were mustering to block up the passes in advance, spent another night of inactivity and suffering in the cruel snow.

It was at the entrance of the Koord-Caulbul Pass that the force, now on the evening of the 7th of January having in two days accomplished a distance of only ten miles, halted on some high ground. The confusion far exceeded that of the preceding night. The great *congeries* of men,

women, and children, horses, ponies, and camels, there wallowing in the snow, no words can adequately describe. Many lay down only to find a winding-sheet in the snow. There was no shelter—no firewood—no food. The Sepoys burnt their caps and accoutrements to obtain a little temporary warmth. One officer narrates how he and eleven others “crowded round the hot ashes of a pistol-case, and with some bottles of wine still remaining, tried to keep off the effect of the cold. They then all huddled together and lay down on the ground to sleep.”

The sun rose upon many stiffened corpses; and a scene of still greater confusion than had marked the dawn of the preceding morning now heralded the march of the force. Doubt and uncertainty regarding the intentions of their chiefs brooded over the officers of the force; but few of the soldiers now remembered their chiefs, and the camp-followers were wholly regardless of their wishes.

One paramount desire to escape death held possession of that wretched multitude; and a crowd of soldiers and camp-followers, at an early hour, began to push on confusedly to the front.

It was agreed that they should push on to Tezeen, there to await certain tidings of the evacuation of Jellalabad. Between Boot-Khak and Tezeen lies the stupendous pass of Koord-Caubul. For a distance of five miles it runs between precipitous mountain-ranges, so narrow and so shut in on either side that the wintry sun rarely penetrates its gloomy recesses. Into the jaws of this terrible defile the disorganised force now struggled in fearful confusion. In vain did Akbar Khan issue his orders; in vain did his principal adherents exert themselves to control the hordes of fanatic Ghilzyes, who poured upon our struggling rabble a deadly fire from their jezails. Nothing could restrain the fierce impetuosity of our cruel assailants. Pent in between the incumbent walls of the narrow pass, now splashing through the mountain torrent, now floundering through the snow

which filled the hollows, or was banked up beside the streams, the wretched fugitives fell an easy prey to the Ghilzye marksmen, who shot them down from the hill-sides. It was not a time to think of saving anything but human life. Baggage, ammunition, public and private property, were abandoned; and the Sepoys suffered their very firelocks to be taken out of their hands.

The massacre was fearful in this Koord-Caubul Pass. Three thousand men are said to have fallen under the fire of the enemy, or have dropped down paralysed and exhausted, to be slaughtered by the Afghan knives. And amidst these fearful scenes of carnage, through a shower of matchlock balls, rode English ladies on horseback, or in camel panniers, sometimes vainly endeavouring to keep their children beneath their eyes, and losing them in the confusion and bewilderment of the desolating march.

That night the force again halted in the snow, now deepened by a heavy fall, which, as the army neared the high table-land of Koord-Caubul, had increased the bitterness of the march. The night was, like its predecessors, one of intense suffering, spent by the perishing troops without shelter, without firewood, and without food. At early morn there was another rush of camp-followers and undisciplined Sepoys to the front; but the march of the troops, which had been ordered at ten o'clock, was countermanded by the General.

In the meanwhile Major Pottinger, who had passed the night in a neighbouring castle, was in consultation with Akbar Khan; and Captain Skinner was acting as the vehicle of communication between them and the headquarters of the army. A new, and, at the first sound, startling proposition was now made by the Sirdar. He proposed that all the English ladies with the force should be placed under his charge, that he might convey them safely to Peshawur. Remembering that the families of the Sirdar himself were prisoners in the hands of the British, and believing that he

was sincere in his desire to save the ladies and children from the destruction that awaited them on the line of march, Pottinger sanctioned the proposal; and Skinner was despatched to the headquarters of the force to obtain the General's consent. "Desirous to remove the ladies and children, after the horrors they had already witnessed, from the further dangers of our camp, and hoping that, as from the very commencement of the negotiations the Sirdar had shown the greatest anxiety to have the married people as hostages, this mark of trust might elicit a corresponding feeling in him," Elphinstone complied with the request. A party of Afghan horse were in readiness to conduct them to the presence of the Sirdar; and so Lady Macnaghten, Lady Sale, and the other widows and wives of the British officers, became the "guests" of the son of Dost Mahomed Khan.

They did not go alone. The married men went with them. The propriety of this step has been questioned. It has been even said that they were not demanded at all by Akbar Khan, but that they threw themselves spontaneously upon the mercy of the chief.

That the safety of the women and children was secured by their removal from General Elphinstone's disorganised camp to the custody of Akbar Khan, is now a fact which stands out distinctly in the broad light of historical truth. But writing now after the event, it becomes one to consider rather the wisdom of the experiment than the success of the result. I believe that Pottinger and Elphinstone judged wisely. There was a choice of evils, and it appears to me that they chose the least. The women and the children could not long have survived the horrors of that perilous march. They had hitherto escaped, almost by a miracle, the assaults of the cruel climate and the inexorable foe. They were insufficiently clad. They had no servants to attend upon them. They had scarcely tasted food since they left Caubul. They had no shelter during the frosty night season. Some had just become, or were about soon to become,

mothers; and yet they had been compelled to ride in jolting camel-paniers, or on the backs of stumbling baggage ponies. It was plain that Akbar Khan had no power to restrain the tribes who were butchering our helpless people. The army was fast melting away. It was doubtful whether a man would reach Jellalabad in safety. To have left the women and children to pursue their march would have been to have left them to inevitable destruction.

The married officers and their families having gone over to the Sirdar, the remnant of the doomed force on the following morning (the 10th of January) resumed its march towards Jellalabad. There was the same miserable confusion as on the preceding morning. Soldiers and camp-followers rushed promiscuously to the front. The native regiments were fast melting into nothing. Throwing down their arms and crowding in among the mass of camp-followers, the Sepoys were rapidly swelling the disorganised rabble in front. Their hands were frost-bitten; they could not pull a trigger; they were paralysed, panic-struck; they rushed forward in aimless desperation, scarcely knowing what they did or where they went; whilst the Afghans, watching the cruel opportunity, came down, with their long knives, amidst their unresisting victims, and slaughtered them like sheep. "A narrow gorge between the precipitous spurs of two hills" was the appointed shambles. There the dead and the dying soon choked up the defile. There was not now a single Sepoy left. Every particle of baggage was gone. About fifty horse-artillerymen, with one howitzer gun; some 250 men of the 44th; and 150 cavalry troopers, now constituted the entire force. Of the 16,000 men—soldiers and camp-followers—who had left Caubul, not more than a quarter survived.

It was a bright, frosty night. The snow was lying only partially on the ground. For some miles they proceeded unmolested. But when, at Seh-Baba, the enemy again opened a fire upon their rear, the camp-followers rushed to the front; and when

firing was heard ahead of the column, again fell back on the rear. Thus surging backwards and forwards—the ebb and flow of a great tide of people—these miserable camp-followers, in the wildness of their fear, overwhelmed the handful of soldiers who were still able and willing to show a front to the enemy, blocked up the road, and presented to the eyes of the Afghan marksmen a dark mass of humanity, which could not escape their fire even under cover of the night.

There was a terrible fate awaiting them as they advanced. The Jugdulluck Pass was before them. The road ascends between the steep walls of this dark precipitous defile, and our wretched men struggled onward, exposed to the fire of the enemy, till on nearing the summit they came suddenly upon a barricade, and were thrown back in surprise and dismay. The enemy had blocked up the mouth of the pass. Barriers, made of bushes and the branches of trees, opposed the progress of the column, and threw the whole into inextricable confusion. The camp-followers crowded upon the soldiers, who, in spite of the overwhelming superiority of the enemy, fought with a desperate valour worthy of a better fate. The Afghans had been lying in wait for the miserable remnant of the British army, and were now busy with their cruel knives and their unerring jezails. The massacre was something terrible to contemplate. Officers, soldiers, and camp-followers were stricken down at the foot of the barricade. A few, strong in the energy of desperation, managed to struggle through it. But from that time all hope was at an end.

At this Jugdulluck barrier it may be said that the Caubul force ceased to be. A few officers and a few men cleared the barricade, and struggled on towards Gundamuck. About daybreak they reached that place; and the sun rose upon a party of some twenty officers and forty-five European soldiers. The enemy were mustering around them. "Every hut had poured forth its inhabitants to murder and to plunder." There were not more than two

rounds of ammunition remaining in the pouches of our men. But they had not lost all heart. "Their numbers were as one to a hundred—most of them already wounded," but they were resolute not to lay down their arms whilst a spark of life remained. A messenger came from the chief of the district with overtures to the senior officer present. Major Griffiths, of the 37th Native Infantry, was then the chief of that little band; but whilst he was on his way to the Sirdar, the enemy mustering around them called upon them to give up their arms. The refusal of the brave men, followed by a violent attempt to disarm them, brought on a hand to hand contest. The infuriated mob overwhelmed the little party of Englishmen, and cut them up almost to a man. Captain Souter, of the 44th Regiment, who had wrapped the regimental colour round his waist, and a few privates, were taken prisoners. The rest were all massacred at Gundamuck.

A few, however, had pushed on from Soorkhab, which lies between Jugdulluck and Gundamuck, in advance of the column. One by one they fell by the way, until the number was reduced to six. Captains Bellew, Collyer, and Hopkins, Lieutenant Bird, and Drs. Harpur and Brydon, reached Futtehabad alive. They were then only sixteen miles from Jellalabad. A prospect of salvation opened out before them all; but only one was suffered to escape. Some peasants in the vicinity of Futtehabad came out, spoke to the fugitives, and offered them bread to eat. They thought that a little food would strengthen them to toil on to the end of their painful journey; and the agonies of hunger were hard to endure. But again was there death in delay. Whilst our officers tarried for a few minutes to satisfy the cravings of nature, some of the armed inhabitants of the place sallied out and attacked them. Bellew and Bird were cut down. The others rode off; but were pursued and overtaken; and three of the remaining number were slain. Dr. Brydon alone escaped to Jellalabad. Wounded, and worn out by famine and fatigue, he had

struggled onward, borne by a jaded pony, till the walls of the fort appeared in sight; and a party came out to succour him.

So perished the last remnant of a force which had left Caubul numbering 4,500 fighting men and 12,000 camp-followers. The frost and the snow had destroyed more than the jezails and the knives of the Afghans. It was not a human enemy alone with which those miserable men had to contend. It was theirs to war against a climate more perilous in its hostility than the inexorable foe. But neither the cruel cold nor the malignant Afghans would have consigned the British army to destruction,

if the curse which had so long brooded over the councils of our military chiefs, and turned everything into folly and imbecility, had not followed them on their exode from the Caubul cantonments, and crowned the catalogue of disaster and disgrace.

The events of that miserable week in January (says Kaye in his "War in Afghanistan," from which we have condensed this account) afforded a fitting climax to the series of disasters which had darkened the two preceding months. There is nothing, indeed, more remarkable in the history of the world than the awful completeness—the sublime unity—of this Caubul tragedy.

HANS HOLBEIN.



REAT obscurity very often surrounds the origin and early life of great men. It is, however, easy to account for. Eminence does not always crown their labours till late in life, and then the painstaking inquiries of those who would trace the beginnings of their career are baffled with the flight of time.

A great deal of this obscurity rests upon the life of the marvellous painter Holbein. The question of the locality of his birth, indeed, may be considered settled; it was in Augsburg, that city which has been the centre of so many splendid political dramas, and perhaps in a street called the *Strasse zum Diebold*; but when that is said, almost all is told that is certainly known of his earliest life. Even the date of his birth is doubtful, but most authorities fix it at about 1495. His father was a painter, several of whose works, far inferior to those of the son, are still to be seen at Augsburg, but of whom nothing more need be said.

The earliest work of Hans Holbein (the son) which is known is dated 1509, and is preserved in the Berlin Museum. In 1516

he transferred his art to Basel, in Switzerland, where he painted, amongst other works, the portraits of the burgomaster and his wife. His great work here, however, was the decoration of the Town House, an important matter in the old continental cities. Holbein was also employed at Altorf, in the Canton of Uri, from which district some have supposed the painter's family to have originally come, as the Holbein arms are nearly identical with those of Uri. The works he executed at Altorf were unfortunately destroyed by fire in 1799; the principal work was an altar-piece of the "Crucifixion" in the parish church, on canvas. For Lucerne he painted five pictures—a "Nativity," the "Adoration of the Kings," "Christ disputing with the Doctors," "Sancta Veronica," and a "Taking down from the Cross," with the thieves still hanging. They have long since disappeared.

In 1519 Holbein became a citizen of Basel, and some important works of that date are still in preservation. He seems at this period to have reached the maturity of his powers, though as he grew older he appears to have become more careful and minute in his execution. The Basel Museum

catalogue contains no less than thirty-two pictures, besides drawings, ascribed to Holbein, amongst them an admirable portrait of himself, and a picture of his wife and two children, one of them belonging to his wife by a former marriage. The name of the painter's wife was Elizabeth Schmid, and Holbein seems to have married her about the year 1522; his domestic life was not happy.

In 1526 Holbein came to England at the invitation of the Chancellor More, when

Henry VIII. was living in peace with his first wife, and Wolsey was supreme in the State. Holbein was then in his thirty-second year, in the prime of his manhood and the zenith of his power as a painter. Returning for a short time to Basel, he again came to England in 1531, and lived at Chelsea with his patron, where he painted many of the visitors, among them Archbishop Warham, and Colet, Dean of St. Paul's. Some time after the execution of



PORTRAIT OF HOLBEIN BY HIMSELF.

his patron he entered the service of the king. This was indirectly through the influence of Sir Thomas More, who at an entertainment had placed some of Holbein's pictures in the king's way. From this time to his death he lived entirely in this country. It was the plague of 1543 that carried him off, at about the age of sixty. There is no distinct record of the fact, but it seems to be well authenticated by tradition. Hol-

bein left two children in England, besides his son Philip at Basel, and his wife seems to have pre-deceased him.

Holbein was a man of wonderful versatility; he worked equally well in oil and in water-colours; he was also a skilled engraver, and painted miniatures of especial excellence. His "Dead Christ," at Basel, is a most remarkable work. The painter has admirably represented death and decay.



A MIRACULOUS PICTURE AT BOLOGNA.

BOLOGNA, as a rule, is not lively. But there is one day in the year when she wakes out of her lethargy—when she suddenly gives signs of life, and launches into all kinds of revelry. This is when she is visited by her own especial Madonna—the Madonna di San Luca—on the evening of the Saturday before the Feast of the Ascension. At six o'clock p.m., on that day, the report of a cannon announces the arrival of the Madonna at the city gates; and the motley crowd of merry-makers, high and low, old and young, peasant girls and citizens' daughters, sturdy countrymen and town magnates, hasten to join the crowd, who have already set out to meet the procession on its way from the Sanctuary of San Luca.

The said Sanctuary is perched aloft upon the loftiest peak of a mountain, or rather hill, known as the Monte della Guardia, and situated about two and a half miles from the city. Its great treasure is a picture of the Madonna, painted, as we learn from tradition, A.D. 34, when the Virgin was forty-seven years of age, by St. Luke, in Jerusalem, and deposited for a time in the grand temple of St. Sophia, at Constantinople.

Marvellous was the mode by which St. Luke found means to paint from the life the portrait of the infant Jesus as well as of the Virgin. We are told that he was enabled in this wise to accomplish the feat: The Blessed Virgin looked up towards heaven, and suddenly a ray of light, descending from our Lord, assumed the semblance of the Redeemer as He lay when an infant in His mother's arms, and remained visible until the Evangelist had finished the picture.

It was about 1160 that this miraculous

picture was deposited in the Hermitage. The solemnity was duly attested with the greatest pomp by Vitale Bilicio, notary, and from that day gifts and offerings of all kinds began pouring in from every side on the Blessed Virgin of San Luca. Every one was desirous of paying a visit to the miraculous Madonna, of whom every one asked help, and from whom every one obtained some favour. In course of time the Hermitage became a Canonical Establishment, and the hermitesses canonesses, while the fame of their heavenly patroness kept on increasing at a proportionate rate. The Bolognese were proud of possessing the marvellous picture; and well indeed they might be, considering the wonders it was continually working, some of which were puerile almost beyond belief.

In 1302, the partisans of the Marchese d'Este and those of Charles de Valo contended with each other for the supreme power in Bologna. To allay the irritation between the opposite factions, and avoid civil war, the Senate resolved on appealing to the sacred picture. The picture was, for the first time, carried in procession to the city, and exhibited for several days, while the inhabitants offered it up their prayers. The judiciousness of the step taken was soon clear. Angry passions subsided, discord ceased, and brotherly love reigned everywhere throughout the city—at any rate, for a limited period.

In 1365 there was a terrible earthquake. The Senate, very naturally, again had the Madonna brought down to the city, and with a result which, we are told, was equally effective—as it doubtless was. In 1436 a frightful pestilence broke out. The Bolognese were far too intelligent to rely on the faculty, or institute house-to-house visitation; they simply once more brought down the Madonna from her elevated abode, and exhibited her for three days in

the panic-stricken city. The plague ceased. But greater marvels were in store. On the 4th of June, 1437, the country around Bologna was one vast lake; the cataracts of heaven poured down in such force that the entire province was under water, and the Deluge appeared almost to have returned. In this emergency an immense multitude, including persons of all classes, proceeded by night to the Monte della Guardia, whence, sinking at every step up to their knees in water and mire, they transported the wonder-working picture to the city as usual, and placed it for the prayers of the faithful in the church of San Mattia. There can be only one opinion about the judiciousness of the measure. The instant St. Luke's masterpiece was lodged in the church, a strong wind sprang up, the clouds broke and gradually disappeared, the sun shone forth in all its brilliancy, and the people, shedding hot tears of devotion and gratitude, fell down on their knees, and worshipped before the supernatural effigy.

To commemorate such great prodigies, the Senate signed, on the 31st of August, 1434, a decree, ordaining that the Madonna should always be brought down to the city on the first Sunday in July, that date being altered by a decree of the year 1435 to the Saturday before the Festival of the Ascension.

During the last century reverence for the picture attained a higher pitch, perhaps, than it had ever previously reached. It was resolved to erect a larger church than that then existing for the resting-place of the famous picture. On the 26th of July, 1723, Bernardino Marescotti, a dignitary of the cathedral, blessed the third stone of the proposed church, and profited so well by the occasion as to raise to fever-heat the religious enthusiasm of all his audience; and indeed, eventually, of the entire population. All the workers, masons, bricklayers, carpenters, smiths, painters, and labourers, carried away by their enthusiasm, declared their readiness to give their services gratuitously. Their example was catching. Rich and poor, without distinc-

tion of age or sex, rushed to the foot of the ascent, and loading themselves with stones, wood, and other building materials, carried them up to the site of the future edifice, which was completed after the lapse of forty years of unflagging exertion, and, on the 25th of March, 1765, consecrated, with solemn pomp and amid general rejoicings, by Cardinal Malvezzi.

The road leading to the Sanctuary twists up the hill from the Saragozza Gate, a distance of two and a half Italian miles. Now none of the religious confraternities ever allow a week to pass without visiting the Blessed Virgin of St. Luke, and their example is very generally followed by the mass of the inhabitants. It was, therefore, necessary to protect the faithful from the scorching heat of the summer sun, and from the blinding snow which, in some years, falls all the winter. In no more than eighteen months, a broad and solid arcade of three hundred and six arches was erected from the Saragozza Gate to the magnificent Meloncello Bridge, the work of Francesco Galli Bibbiena, which spans the highway at the foot of the hill. From the Meloncello Bridge to the Sanctuary there are three hundred and thirty-two more arches, with fifteen small chapels dotted along them at regular intervals. The grand arcade affords striking testimony of the hold obtained over the Bolognese by the famous picture from Constantinople.

The three great features in the annual procession of the Madonna, as it takes place at present, are the departure, the benediction, and the return. The ceremony begins legally when the vicar of the Mount delivers the picture to the priest who has gone to fetch it. In the Sanctuary, before all the persons there assembled, the priest is obliged to sign a formal acknowledgment of having received the picture; then, and not till then, it is handed over to him. Formerly the procession halted at various stations, stopping first in one church and then in another. Since 1799, however, it proceeds directly to the cathedral, where the Madonna remains till the eve of the

Ascension, when she goes to the church of San Petronio, and blesses the multitude who have flocked from all parts to the principal square. After being exhibited for four days in the cathedral, to the admiration of the faithful, she leaves on the Wednesday at sunset, turns into the Marcato di Mezzo, then into the Spaderie, passes along the Pavaglione, enters the church of San Petronio from the rear, and, traversing the grand and boldly-conceived nave, comes out at the top of the majestic flight of steps looking upon the square.

On Ascension Day the Madonna returns to the Monte della Guardia. The last benediction is given at the Meloncello Bridge. The crowd is as dense as before. All the arcade to the right has been invaded by the faithful. The road is crammed with carriages and vehicles of all descriptions. Numbers of ladies and gentlemen

accompany the procession ahead, while others send their footmen with tapers to represent them. Next to the superb carriage horse, covered with silver harness, of the wealthy noble stands the poor screw of a hired chaise, while the most elegant caleche has for its neighbour, perhaps, the mountain car drawn by a humble donkey. The block is complete, and woe to the driver foolhardy enough to attempt moving forward a single inch; a crash is inevitable, and the consequences to himself ought but agreeable. He has a chance of seeing dance before his astounded gaze even more tapers than those, numerous though they be, lighted in honour of the Madonna.

When the benediction has been bestowed on the vast multitude at the bridge a cannon shot announces the event, and the Madonna slowly pursues her way to the Sanctuary.

THE YOSEMITE VALLEY.



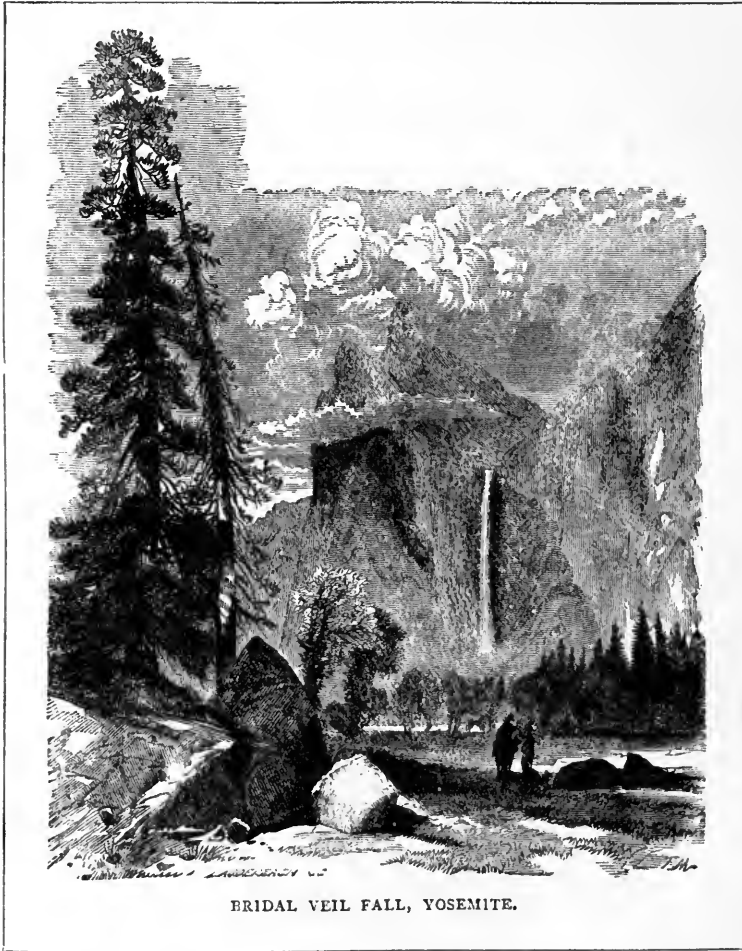
THE Yosemite Valley is described in the official guide-book as "a floor eight miles long by two miles wide, with walls three-quarters of a mile high!" The valley is unique, not merely in the height and verticality of its walls of rock; its narrowness is a noticeable feature. Its waterfalls, plunging down a sheer leap of from one thousand to three thousand feet, are unequalled in the world.

Perhaps nothing in the whole valley is finer than the entrance to it. On the left is El Capitan, an immense block of granite 3000 feet high, projecting squarely out into the valley, and presenting an almost vertical sharp edge, three thousand three hundred feet in elevation. The sides or walls of the mass are bare, smooth, and entirely destitute of vegetation. It is almost impossible for the observer to comprehend the enor-

mous dimensions of this rock, which in clear weather can be distinctly seen from the San Joaquin plains, at a distance of fifty or sixty miles. Nothing, however, so helps to a realization of the magnitude of these masses about the Yosemite, as climbing around and among them. Let the visitor begin to ascend the pile of débris which lies at the base of El Capitan, and he will soon find his ideas enlarged on the point in question. And yet these heaps of débris along the cliffs, and especially under El Capitan, are of insignificant size compared with the dimensions of the solid wall itself. They are hardly noticeable in taking a general view of the valley. El Capitan imposes on us by its stupendous bulk, which seems as if hewed from the mountains on purpose to stand as a type of eternal massiveness. It is doubtful if anywhere in the world there is presented so squarely cut, so lofty, and so imposing a face of rock.

On the other side of the valley we have the Bridal Veil Fall, unquestionably one of the most beautiful objects in the Yosemite. It is formed by the creek of the same name, which rises a few miles east of Empire Camp, runs through the meadows at West-falls, and is finally precipitated over the cliffs on the west side of Cathedral Rock

into the Yosemite in one leap of six hundred and thirty feet perpendicular. The water strikes here on a sloping pile of débris, down which it rushes in a series of cascades for a perpendicular distance of nearly three hundred feet more, the total height of the edge of the fall above the meadow at its base being nine hundred



BRIDAL VEIL FALL, YOSEMITE.

feet. The effect of the cascade, as everywhere seen from the valley, is as if it were nine hundred feet in vertical height, its base being concealed by the trees which surround it.

The quantity of water in the Bridal Veil Fall varies greatly with the season.

In May and June the amount is generally at the maximum, and it gradually decreases as the summer advances. The effect, however, is finest when the body of water is not too heavy, since then the swaying from side to side, and waving under the varying pressure of the wind as it strikes the long

column of water, is more marked. As seen from a distance at such times, it seems to flutter like a white veil, producing an indescribably beautiful effect.


As to the original formation of this remarkable valley, the officials of the Geological Survey of the United States, report: "We are led irresistibly to the adoption of a theory of the origin of the Yosemite, in a way which has hardly yet been recognised as one of those in which valleys may be formed, probably for the reason that there are so few cases in which such an event can be absolutely proved to have occurred. We conceive that, during the process of upheaval of the Sierra, or, possibly, at some time after that had taken place, there was at the Yosemite a subsidence of a limited area, marked by nearly parallel lines of 'fault,' or fissures crossing each other at right angles. In other and more simple language, the bottom of the valley sank down to an unknown depth, owing to its support being withdrawn from underneath, during some of those convulsive movements which must have attended the upheaval of so extensive and elevated a chain, no matter how slow we may imagine the process to have been.

By the adoption of the subsidence theory for the formation of the Yosemite, we are able to get over one difficulty which appears insurmountable with any other. This is the very small amount of débris at the base of the cliffs, and even, at a few points, its entire absence, as previously noticed in our description of the valley. We see that fragments of rock are loosened by rain, frost, gravity, and other natural causes along the walls, and probably not a winter elapses that some great mass of detritus does not come thundering down from above, adding, as it is easy to see from actual inspection of those slides which have occurred within the past few years, no inconsiderable amount to the *talus*. Several of these great rock avalanches have taken place since the valley was inhabited. One which fell near Cathedral Rock is said

to have shaken the valley like an earthquake. This abrasion of the edges of the valley has unquestionably been going on during a vast period of time; what has become of the detrital material? Some masses of granite now lying in the valley—one in particular, near the base of the Yosemite Fall—are as large as houses. Such masses as these could never have been removed by currents of water; in fact, there is no evidence of any considerable amount of aqueous erosion, for the cañon of the Merced below the Yosemite is nearly free from detritus all the way down to the plain. The falling masses have not been carried out by a glacier, for there are below the valley no remains of the moraines which such an operation could not fail to have formed.

It appears to us that there is no way of disposing of the vast mass of detritus which must have fallen from the walls of the Yosemite since the formation of the valley, except by assuming that it has gone down to fill the abyss which was opened by the subsidence which our theory supposes to have taken place. What the depth of the chasm may have been we have no data for computing; but that it must have been very great is proved by the fact that it has been able to receive the accumulations of so long a period of time. The cavity was undoubtedly occupied by water, forming a lake of unsurpassed beauty and grandeur until quite a recent epoch. The gradual desiccation of the whole country, the disappearance of the glaciers, and the filling up of the abyss to nearly a level with the present outlet, where the valley passes into a cañon of the usual form, have converted the lake into a valley with a river meandering through it. The process of filling up still continues, and the *talus* will accumulate perceptibly fast, although a long time must elapse before the general appearance of the valley will be much altered by this cause, so stupendous is the vertical height of its walls, and so slow their crumbling away, at least as compared with the historic duration of time."

MY FIRST VISIT TO ETNA.

UST the sort of weather for an ascent of Mongibello," said my landlord of the Corona d'Oro, at Catania, to me on the morning of this brilliant October day. "There are three French gentlemen and a Maltese priest who have arranged to start this evening for Nicolosi, and so reach the summit of the crater in time to see the sun rise. You can join them, Signor Inghlesi, if you please—the more the merrier."

And so I did. I dined early, and got everything prepared for a journey of a couple of perpendicular miles into the region of the sky. The excitement of my first volcano almost took away my appetite. I could scarcely keep my eyes off that fascinating cone that now looked so close to me in the clear atmosphere, and yet was thirty miles away.

At four p.m. we started from the Strada del Corso in an open carriage, drawn by three horses abreast, for the village of Nicolosi, situated about a dozen miles up the slopes of the mountain. Creature comforts, in the shape of a couple of turkeys, with a supply of bread, cheese, wine, and coffee, had been provided; together with warm cloaks and wrappers, to protect us from the intense cold we expected to encounter in the upper regions of Etna. The fat priest had doffed his sable robes and his triangular hat, and now appeared uncommonly like a retired cheesemonger, in a "pepper-and-salt" tourist suit. The Frenchmen lit their cigarettes, and we all felt very jolly in anticipation of the night's adventures, as our chariot rolled up the "Strada Etnea" that leads towards the mountain, and from which point its stupendous base begins to rise. The route from Catania to Nicolosi lies through the lower or fruitful region, amongst vineyards and plantations of orange and lemon trees, and garden of

Indian corn, interspersed here and there with the date palm, the aloe, and the bergamot. Still ascending, we passed through several small villages built of lava, and surrounded by groves of antiquated olives, many of the trees attaining an enormous size.

Soon after dark we arrived at Nicolosi, where we dismissed our carriage and horses, and engaged guides and mules for the further prosecution of our upward journey.

In the quiet village of Nicolosi, where no sound of footfall is heard on its pathways of soft volcanic sand, there resided a philosopher—a Sicilian *savant*—whose long life had been devoted to the study of the phenomena of the treacherous volcano, on the slope of which he delighted to dwell. To this learned gentleman I fortunately bore an introductory letter; and through his courtesy, we soon obtained a couple of guides and half a dozen mules.

"It is now seven o'clock," said the philosopher. "You must rest for one hour, by which time the mules will be all ready, and the moon will have risen. Then you can start; but I fear the night will be unfavourable for the ascent."

Soon after eight we "made tracks," as the Yankees say. A man with a lanthorn led the cavalcade, as, in Indian file, our mules climbed the path over the sharp and dangerous rocks of lava that formed the only road upwards towards the "Bosco," or woody region of the mountain. Sometimes we found ourselves on the brink of a black and rugged channel of lava and ashes; at others we were overlooking some fearful and giddy precipice.

As we scaled height after height, a thick dewy mist surrounded us, and we found ourselves in the clouds. The wind grew louder, and we could hear it whistling and moaning amongst the ilex trees of the

Bosco far above us; whilst the distant howling of the wolf, and the occasional yell of the wild cat, came in fitting harmony with the rising gusts of the storm. At length we emerged from the trees of the Bosco, and arrived at the "Casa della Neve," or "winter refuge," a rude stone hut, beyond which vegetation is represented only by a scanty growth of lichens; whilst a desert region of volcanic sand scattered with huge masses of lava stretches onward for seven weary miles, till the final resting-place, the "Casa della Inghlesi," at the foot of the cone, is reached.

During our progress through the Bosco, the fat priest showed signs of recantation. He was continually slipping off his mule backwards, and holding on by its tail. At last, he suddenly pulled up, and with a most emphatic "*non possumus*," declared he would proceed no farther! The lazy guides, too, who had doubtless been influenced by the priest, affirmed that to venture onwards would be to hazard our lives; and that we should either, on reaching the summit of the crater, be blown into it by the wind, or precipitated into the Val del Bue, over a precipice of a thousand feet in depth! Expostulation on the part of the Frenchmen and myself was useless; so, in a sullen and disappointed state of mind, we dismounted our mules and commenced the descent of the mountain. We reached the "Casa della Neve" in safety, just as light streaks in the east heralded the dawn; and cold, tired, and hungry, we entered the hut, where our guides kindled a bright wood fire, by the aid of which we commenced forthwith devouring the cold turkeys and drinking the Marsala. Daylight saw us winding down through the verdant fern-clad dells of the Bosco, a dejected and dispirited cavalcade; for as we watched the clouds over-head chasing one another away from the upper region of the mountain, the three Frenchmen and myself inwardly felt that we had indeed been "sold." The perfume of the cyclamen was delightful in the balmy morning air, and the blossoms of the autumnal

crocus streaked the glades with purple; but we felt vexed and cross, and not in the proper mood to enjoy the loveliness of nature. On regaining Nicolosi, I declared I would not leave Sicily until I had climbed to the topmost peak of my volcano, and I kept my word.

A week afterwards I renewed the attempt to ascend Etna. This time I started unencumbered with priests and Frenchmen, taking with me from Nicolosi two staunch and willing guides, who agreed to conduct me to the summit of the crater, or, in default, to forfeit the stipulated reward. Hopeful and jubilant, with "Excelsior" for my motto, I left the philosopher's cottage about nine p.m. Our mules silently pursued their way along the little lane of soft volcanic sand, and we passed onwards and upwards through the wild lava tracts by the light of the stars, that shone with intense brilliancy in the clear atmosphere of so elevated a region. The "Casa della Neve" was reached about midnight; and here we halted for a quarter of an hour only, pushing forward, above the limits of vegetation, over barren fields of lava and sand and ashes, till we arrived at the "Casa degli Inghlesi," or "summer refuge," situated on a plain at the bottom of the cone. This hospitable shelter consisted of a spacious hut, built of lava, in two compartments, the inner one containing some straw mattresses, that were frozen perfectly stiff. The outer walls we found covered with ice, and the cold was intense. The guides had brought a supply of charcoal with them, and soon kindled a fire and prepared some coffee, which, with a dash of rum in it, set us aglow, and made us eager for the final climb. It wanted yet an hour to sunrise, and was still very dark. Leaving our mules at the refuge, we set out on foot, provided with long alpenstocks to aid us in clambering over the sharp and dangerous masses of lava. Presently I slipped into an unseen cavity, and cut a gash in my knee against the edge of a block of obsidian. The guides pulled me out, all scratched and bleeding, but I would onward, and shouted

"Excelsior." As we continued to ascend, at an angle of less than forty-five degrees, our progress was greatly impeded by the loose ashes and cinders, that gave way at every step, and into which we sank up to our knees. The wind also came in such violent gusts that we had frequently to crawl on our hands and knees to prevent being blown away bodily. Presently we encountered sulphurous vapours, curling out through the loose apertures of the soil, and we hoped we were nearing our goal, but it took half an hour's further laborious climbing before we arrived at the edge of the highest or grand crater. Here I sank down on the soft ashes quite exhausted, the difficulty of breathing in so rarefied an atmosphere, at an altitude of twelve thousand feet, being painful and irksome. After a short rest I approached the brink of the basin, or interior hollow, which constitutes the crater, and descends very abruptly downwards towards the bowels of the mountain. Here, on the extreme edge, we lay flat down peering into the bottomless abyss, but the vapours that continually arose from all sides of its mighty depths prevented our seeing very far down into it. The interior of the crater was thickly encrusted with sulphur and other volcanic substances, presenting beautiful gradations of tint and colour. From bright yellow, which was the prevailing hue, white orange, crimson, brown, and dusky grey, all mingled to produce an harmonious effect of colour that was exquisitely gratifying to the eye.

But there was yet another and loftier peak beyond us, forming the north-east edge of the crater. This was the highest pinnacle of Etna, rearing its summit, naked and exalted, into the blue space of sky above; and on that peak I resolved to stand. It was a dangerous business, creeping along the narrow rim of the crater, and scaling that isolated crag. My guide was a resolute fellow of the right sort; and holding his hand firmly, in safety I gained the top. I could ascend no higher; unless, indeed, I had followed the example of that lively French actress who, after attaining

the summit of Mont Blanc, mounted the shoulders of her guide to reach a still loftier altitude. Dizzy precipices lay below; and all around and beyond was space—vast, sublime, and magnificent. Very soon the whole sky became radiant with the light of the rising sun; whilst beneath us myriads of fleecy clouds canopied the land, disparting here and there, thus affording a glimpse of outstretched landscapes, with dark forests and rivers winding like silver threads, far, far below. To the south and west the eye ranged over the summits of crowded mountains, that lay as so many hillocks crouching at the feet of a giant; but northwards, over Italy, all was shrouded in haze and gloom. Suddenly my guide pointed in a westerly direction, exclaiming "*L'ombra, L'ombra!*" and I saw what for the moment appeared to be another vast mountain in the distance. This was the remarkable phenomenon of the shadow of the cone, in the shape of a pyramid, thrown upon the atmosphere by the rays of the sun. As the sun rose higher, this vast shadow decreased in height, and the deceptive appearance grew less, till at length it melted away altogether.

I had now obtained the object of my ambition—I had scaled my first volcano after two attempts; and I was not sorry. The descent proved much more rapid than the ascent. A series of running leaps, with our feet sinking deep into the ashes at every step, soon brought us to the foot of the cone, and we were glad enough to refresh ourselves with a hearty breakfast at the refuge on the plateau. Passing some patches of frozen snow, we entered the region of mosses and lichens; and so, downwards, into the wooded "*Bosco*," and so back to Nicolosi.

A traveller, writing from Taormina, in Sicily, May 29th, 1879, gives his impressions of that terrific eruption, the most serious since the eruption in the year 1865, which lasted for nearly six months. He says:—

"On the night of May 25th there were continuous murmurings from Etna, but this

not being an uncommon occurrence, it attracted but little or no attention. On the morning of the 26th these murmurings increased, and I called the attention of a servant of mine to the fact, but he positively denied that the sounds proceeded from the mountain at all; he rather thought the noise was made by the surf beating on the sea-shore 800 feet below, a dull sound which it much resembled. Somebody called attention to the glass rattling in the window-frames, and somebody else suggested earthquake, a suggestion which was met with derision.

However, at about half-past twelve p.m., a dense cloud of smoke was seen to be issuing from the great crater of Etna—that is, as well as its origin could be traced amid the clouds with which the mountain was covered. It was a broad cloud which stretched over the land and over the sea until it was lost on the horizon. It had a very red, or rather it might be described as of a burnt sienna, colour, and minute specks of ash began to fall, but not in any quantity; we could trace it in its course far into the night, and, in fact, until we all went to bed. On the morning of the 27th all seemed in repose—not a cloud was upon the mountain, save the flat cloud with a lump in the middle which often overhangs the crater in the summer months, and which the Sicilians call ‘the Cardinal’s Hat.’ But at half-past eight a dense cloud was observed to issue from the earth upon the northern slope of the mountain, as well as could be judged about half-way between Linguagrossa and Randazzo, but much higher up the mountain. This cloud grew and spread, and became so dense that the whole mountain was perfectly invisible; the light became so much obscured that it resembled the darkness produced by a total eclipse of the sun, and a rain of fine black ash, like powdered emery, commenced. So heavy was the fall that the promontory of Naxos, but two miles distant, became perfectly invisible. This black rain continued the whole of the day, loud reports could occasionally be heard from the mountain, and

no doubt now remained that an eruption on a grand scale had commenced. No positive information could be obtained as to its exact locality, for nobody could ascend the mountain under such circumstances. Etna is so enormous and so precipitous and rugged, that a voyage of investigation in such a rain of ash and such darkness would have been almost an impossibility. We did all we could to obtain news, but very little that could be depended upon was acquired.

All night this black rain went on. About midnight huge fires could be seen looming through the dense clouds. In the morning a most extraordinary scene presented itself; the whole face of nature was black, the hills and plains were black, the sea-shore was black, the usually dazzling white roads were black, the roofs of the houses were black. My garden is just now a mass of flowers, but every leaf, every petal, every cup, was loaded with black, the edges of the petals giving a bright line of the colour of the flower. If a breath of wind passed, a black shower fell from the trees, and still the black rain went on. The effect upon the mind was most depressing. This ash penetrates everything; it is found in closely-shut linen drawers, in close boxes; it is all among my paper as I write; and it seems to take delight in inserting itself in one’s food—for two days I have been chewing grit. The effect of trees and figures in this universal black is very strange, the colours standing out with startling brilliancy.

At two o’clock in the day I started on horseback to Piedmonte to try and gain some positive news, and heard that three craters, each about a mile apart and situate like the points of a triangle, had opened in a valley about six miles above a postal station called Passapescaro, a place nearly midway on the road between Linguagrossa and Randazzo—a most difficult place to reach, as lodging of any description could not be obtained within fourteen miles, over precipitous and rugged ground, with every path obliterated by the ash, the mountain

thundering and vomiting fire in unknown directions, with the terrible darkness and eternal rain of black ash, and general consternation everywhere. The lava was said to be flowing, but only its reflected light could be seen at night, as it was in a valley, which, as far as I can ascertain, must be next the 'Valley del Bove.'

My eyes were most painfully inflamed by the fine ash as I returned, as were those of my horse. My pockets were full, my boots were full; it was down my neck, in my hair and beard, and my ears were blocked up with it; the polished surface of my saddle was ground away with the grit. On the road home I came across a priest enlarging upon the eruption to a select audience of *contadini*, and ventilating his knowledge by describing the destruction of Pompeii, and among other accuracies de-

scribed the devoted sentinel at the Herculaneum gate sticking to his post through it all, and being found with his *gun* 1,800 years after.

At night the scene was magnificent; a tremendous stream of lava, many miles long, descended in the apparent direction of Randazzo, while from the new craters great balls of fire were thrown high in the air and burst into showers of fire, like gigantic rockets, accompanied by thundering explosions. This morning the explosions are still going on; the stream of lava seems more active than ever; but the ash has much diminished, and although much of the mountain is obscured, it is by a cloud apparently of vapour rather than of ash, and this gives indications of clearing away, when the whole scene may become visible."



YORK CATHEDRAL.

THE cathedral is the most prominent object of the fair city of York. Afar off you descrie its three towers rising above the houses,—to use the simile of some writers,—as tall oaks amid a forest of brushwood. Perhaps you obtain the best view from some of the points of the embattled walls. The old walls of York possess their own surpassing interest.

With their turrets and bars they have their dark associations with troubled times of civil strife,—the wars of the Roses, the wars of the Commonwealth, the wars of the Jacobites. We are content to let the ancient machinery of defence lapse into decay, trusting that such will no more be needed on Yorkshire soil, and that the day may soon also come when the sword shall be beat into shares and the spears into pruning-hooks. A very important chapter in the

history of England might be written from the historical associations. We are only occupied now with the best and loftiest of these,—those which are concerned with the cathedral and the religious history of the place.

This is not the time to discuss the many alterations through which the cathedral has passed in assuming its present aspect; and, without a copious employment of architectural terms, it would be difficult to give a perfectly accurate description. The ecclesiastical historians tell us how one prelate laid the foundations deep, and built the crypts; how another increased the crypts and repaired the choir; how one reared the central tower, another the bell tower, and a third the lantern tower; how such an archbishop filled such a window with stained glass; and another laid the foundation of the Lady Chapel, and another completed the chapter-house; how a certain master mason built the rood-screen, and a certain

dean built buttresses and battlements. The general imposing effect of the cathedral is somewhat lost from the mass of congregated houses which closely hem it in. The view in facing the west front is very magnificent. Two uniform towers rise respectively on the north-west and on the south-west. In one of these is the bell Great Peter, and in the other a peal of bells presented to the cathedral. The central porch is divided into two gateways by a foliated shaft. An open battlement runs across the whole breadth. In the middle division is the great west window, an unrivalled specimen of the leafy tracery that marks the style of the middle of the fourteenth century. We now enter the western portal, and are in the nave. How vast and imposing is the scene!—how refreshing the coolness and the silence!—how like the hues of a rich summer evening does the light fall grandly through the painted glass! Slowly we walk onwards. How noble are those aisles! as lofty as those of Westminster Abbey, but without their narrowness. These windows, too, are strikingly like those of the great Abbey. And now as we proceed, the interior of the lantern or great tower is developed. The effort is almost painful when the eye attempts to pierce the soaring roof. The clustered piers bear up the vast arches, the pavement on either hand is irradiated with the colours of stained glass, and right in front is the renowned screen, light and beautiful, with the niched statues of the kings of England, from the Conqueror to Henry the Sixth.

We now enter the choir, which is not in a direct line with the nave, but slightly deflects towards the south. For about seventy feet on each side the choir is occupied with richly canopied stalls. At the end is the desk for reading the Litany, and near it the usual brass eagle and stand from which the lessons are read. At the east end is the communion table, behind which is a stone screen divided into compartments. The architectural effect of the choir is very imposing. By a side aisle we obtain entrance to the crypt, which is

exactly under the communion table. This crypt is built chiefly from the remains of a northern crypt, and has in it an ancient well and a lavatory.

The great east window is one of the most magnificent in the world. It contains about one hundred and fifteen subjects represented on glass. The heads in the various figures are beautifully drawn, and in some instances are thought to resemble those by Raphael. There is a narrow gallery carried across, and from it is obtained a view truly grand of the whole of the proportions of the cathedral, some five hundred feet. Branching off from the north transept is a remarkable chapter-house, of the shape of an octagon. Seven of its sides are filled with as many arched windows. Around the circumference are forty-four canopied stalls of stone, early specimens of what is called tabernacle work. The columns of the stalls are of Petworth marble. Over the door is a row of niches, formerly filled by statues. A clustered pillar divides two arches of entrance. The groined roof is of wood. One of the piers has a Latin inscription in golden Saxon letters to this effect: "As the rose is the flower of flowers, so this is the structure of structures."

Such, then, are the briefly described chief architectural features of this famous cathedral. Volumes have been written describing the building, and giving plans and illustrations of its different portions. For a hundred years this cathedral has been mainly a majestic memorial of the genius and piety of past ages; but, in common with other ecclesiastical edifices, it has now been greatly improved, for the purpose of additional church accommodation. The vast nave has been filled with open seats, and brilliantly lighted with gas from above in the same manner as the choir; and a powerful organ has been introduced between two of the nave pillars, in addition to the well-known organ over the choir-screen. More than two thousand persons have been gathered together in the nave; at least on the occasion when the present archbishop preached, whose powerful voice completely

filled the space. On this occasion the sermon was a most impressive one, on the comfort to be derived by faithful Christians from the looking onward to the light and peace and love of heaven in this lower world.

In modern times two distressing accidents have happened to the cathedral. On two occasions—first through the cunning of a lunatic, and next through the carelessness of a workman—has the noble edifice been in flames, escaping total destruction indeed, but at the expense of overwhelming damage. The first of these occurrences took place in 1829. It was the work of Jonathan Martin, brother of the celebrated painter. There were various manifest proofs of his insanity, and on this ground he was found *not* guilty. He had been well known in York by the singularity of his manner and appearance, by his vehement denunciation of Divine wrath against the clergy, especially those who officiated in the cathedral. He had even gone so far as to fix abusive and threatening papers to the gates of the choir, which unhappily were regarded as the unmeaning effusion of a weakminded and ignorant fanatic. The poor man had some dreams which, to his perturbed imagination, appeared to authorize him to attempt the destruction of the cathedral. On the first of February he had attended the evening service. The service over, he contrived to conceal himself behind the tomb of some bygone archbishop. All things were favourable to his design. The singers had left the belfry door open, whereby he obtained a rope, and their moveable scaffold subsequently enabled him to escape. It was about midnight when he began the work of destruction. He cut off ninety feet of rope, and constructing a scale ladder thus obtained access to the choir. Here he collected prayer-books, music-books, etc., in two heaps against some woodwork; then he knelt down and offered a prayer; then he loudly exclaimed, "Glory be to God;" and under one heap he placed a lighted candle and under another a bundle of burning matches. It was about three

o'clock when the unhappy man left the minster, and the effect of his miserable delusion was not discovered till four hours afterwards.

Throughout Yorkshire, a feeling of consternation and grief prevailed. The estimated damage was sixty thousand pounds. Enormous as was this sum, it was determined to raise it, "on the principle of absolute and perfect restoration." Vast sums were raised, and there were also some remarkable donations. The English government gave some teak-wood, valued at five thousand pounds, and the Earl of Scarborough, who was a clergyman, gave an organ, not only admitted to be the most stupendous instrument in the kingdom, but claiming to be the largest in Europe and the world.

Eleven years passed away, and a similar calamity occurred. A clockmaker of Leeds, engaged in repairing the clock and requiring to use a candle as the chamber was dark, carelessly made a hole for the candle in a flat piece of deal. This he left burning when he quitted his work. Three hours later flames were perceived through the windows of the belfry. The fire had mounted into the bell chamber, where there were many tons of wood forming the framework for the hanging of the bells, much of it saturated with oil and tallow. The fire extended along the roof of the nave, portion after portion of which fell in with a tremendous crash. At midnight the lurid flames lapped the great tower, which, nevertheless, resisted their effect. The damage was estimated at many thousand pounds. The public were much disheartened by the repetition of the conflagration, and hardly responded to the appeal with the liberality which they had shown on the last occasion. The dean and chapter, however, made large pecuniary sacrifices in order to carry out the repairs; and being aided by a considerable legacy left by a York physician, their object was, in the issue, happily accomplished. It has been calculated that of late years much more than a hundred thousand pounds have in all been spent upon the cathedral.



THE ENCHANTED COAST.

MANY travellers have spoken of the surpassing magnificence and grandeur of the scenery in the Arctic Circle, but it has perhaps never been better described than in the following words from the pen of one who obtained his first glimpse of those regions from the masthead of an English vessel:—

“I looked down and around me on a splendid panorama,—a world of ice, of unsullied and dazzling whiteness, with not the smallest speck of water visible to denote the element on which we rode. That section of the panorama to the north ex-

hibited a chain of bergs, transformed by refraction into a formidable line of fortifications, surmounted by towers, castles, etc., of imposing and gigantic dimensions. To the west the prospect was bounded by the middle pack, its irregular surface metamorphosed into magnificent domes, tall spires, Gothic arches, splendid aqueducts, beautiful suspension bridges, and a thousand other fantastical forms which can neither be imagined nor described, the whole assuming the appearance of a vast city, such as we have read of in fairy tales. Even the far-famed Stamboul, with her magnificent mosques, illuminated by the

golden beams of a rising eastern sun, never looked half so splendid as did this phantom city of the realms of ice.

I gazed with wonder and delight upon the beauteous scene until I observed the objects begin to vary in form and shade, and some of them vanish into air. I then directed my eye to the north and east, to contemplate a less glowing, but more tangible picture,—the gloomy, rugged, ice-bound coast that encircles Melville Bay (not far from the meridian of 100° west of Greenwich). Nor tree, nor flower, nor shrub, nor work of art adorns the forlorn prospect; while mountains, precipices, and glaciers, piled together in one heterogeneous mass, presents to the eye such a scene of savage grandeur that I almost doubt whether nature had a benevolent design in the formation of this portion of our planet. There, far in the distance,

‘ Towers sublime,
Winter’s eternal palace, built by time ’;

the mighty glacier, which extends itself amid regions of unmelting snows along the whole coast of West Greenland, imparting an air of awful sublimity and grandeur to a landscape unparalleled in the works of creation.”

Dr. Scoresby makes somewhat similar observations:—

“The general telescopic appearance of the coast was that of an extensive ancient city, abounding with the ruins of castles, obelisks, churches, and monuments, with other large and conspicuous buildings. Some of the hills appeared as if surmounted by turrets, battlements, spires, and pinnacles; while others, subjected to one or two reflections, exhibited larger masses of rock, apparently suspended in the air at a considerable elevation above the actual termination of the mountains to

which they referred. The whole exhibition was a grand phantasmagoria. Scarcely was any particular portion sketched before it changed its appearance and assumed the form of an object totally different. It was perhaps alternately a castle, a cathedral, or an obelisk; then expanding horizontally, and, coalescing with the adjoining hills, united the intermediate valleys, though some miles in width, by a bridge of a single arch of the most magnificent appearance and extent. Notwithstanding these repeated changes, the various figures represented had all the distinctness of reality; and not only the different strata, but also the veins of the rock, with the wreaths of snow occupying ravines and fissures, formed sharp and distinct lines, and exhibited every appearance of the most perfect solidity.”

Another beautiful phenomenon of the Arctic Circle has an electrical origin—the Northern Lights, or Aurora Borealis, which supply the place of day to the inhabitants of the far north during their long winter night, which lasts for months together. They not unfrequently appear in our own country, as a luminous arch near the northern horizon, from which start straight pencils, or lambent flames of red and varicoloured light. These flames, towards the close of the display, which may last several hours, often combine, and form what is called the corona, from its resemblance to a crown. Their height above us is usually sixty miles. As the magnetic needle is strongly affected by the Aurora, it is supposed to be in some manner connected with electric disturbance; and, indeed, if an electric discharge be made through the vacuum of an air-pump, an appearance very like this is presented. A full account of the Aurora Borealis will be found in another part of this volume.



AN INDIAN RIVER.



UNSURPASSED in holiness amongst Indian streams is the Cāvēry, sacred from its furthestmost fountain in romantic mountainous Coorg, as we call *Kodāgu*, literally Peak-land, to where, after crossing the Peninsula, all that is left of its dwindled waters that through countless arms and channels have fertilized luxuriant Trichinopoly and Tanjore, strains into the Bay of Bengal. Local Brahminical legend affirms this river to be the holiest in India. Even Ganga herself is declared to resort underground once a year to its all-purifying flood to wash away the pollution contracted from the crowds of sinners who have bathed in her own waters. We find in Nares an admirable account of the scenery of the holy stream.

The little principality of Coorg lies embosomed in mountains on the western boundary of Mysore: its highest summits are the Brahmagiri range, nearly 5000 feet above the sea. Standing there on a clear November morning a lovely varied landscape opens out. Far as the eye can reach, ridge after ridge of grassy or forest-clad hills stretch away in many-folded multitudes, now with soft wavy outlines, now shooting up in the bold sharp peaks that characterize the country. Far westward the dark-blue Indian Ocean may be discerned over a wide dim region intersected by bright winding rivers. On the topmost Brahmagiri, at a spot called Tala-Cāvēri (Cāvēry-head) the infant stream issues, from no dark cave or ice-grot, but from a green hill-side into a stone basin surmounted by a small shrine, whence it trickles into a tank, about thirty feet square, in which the water is kept at a depth of three feet by an outlet whose overflow is the beginning of what becomes a mighty river.

From its sacred source the Cāvēry winds between high-wooded banks for some thirty miles through Coorg, receiving several tributaries, so that it has expanded into a fair stream when it enters the table-land of Mysore, and by the time it reaches Seringapatam it has broadened into a large river, running swiftly over rocky beds round the long narrow island on which stands the Fort so memorable in Anglo-Indian history.

The Fort of Seringapatam is a huge ill-planned mass of building; and, notwithstanding its long high ramparts, square bastions, and walls piled on walls, ugly and unimposing. The perilous breach, through which our men dashed on that fierce day of vengeance, still remains just as it was when many a brave fellow dropped on its rugged slope. In the inner rampart the narrow sally-port is shown where Tippu, fiercely fighting in person as he was driven from traverse to traverse, was retreating when a crowd flying from within met the assailants rushing on, and after a deadly struggle the Sultan's body was found under a heap of slain. None knew the hand that killed him; but, bloody, pitiless, and treacherous as he was, he died like a soldier and a king.

A mile and a half from the Fort there is a secluded garden. A double row of tall tapering cypresses leads to a stately octagonal mausoleum adorned with cupolas, pinnacles, and fretwork, all dazzling white, and surrounded with a deep verandah supported on pillars of highly-polished black marble. On three sides are magnificent folding doors of massive ebony, inlaid with ivory arabesques, set in door-frames of black marble bright as a mirror. Looking through one of these, three tombs are seen side by side in the centre, where sleep Hyder Ali, his wife, and his son Tippu Sultan. The latter's tomb is covered with rich brocaded silk, the other two with red gold-embroidered cloth. On the side facing the cypress avenue

a large lattice-window, beautifully cut in black marble, admits a subdued light ; and the air within is heavy with aromatic odours. An impressive stillness and repose brood over the spot where these men lie, whose lives were passed in turbulence and bloodshed.

Hence for some forty miles the Cāvēry flows on over a level country, well cultivated and dotted with tanks, towns, and villages, till it approaches the rugged, mountainous tract that separates the Mysore plateau from the burning plains of the Carnatic. On the border of this wilderness, the river, nearly a quarter of a mile broad, separates into two wide arms enclosing the island of Sivasamūdrām—*i.e.* Siva's Sea, on which there are a town and temple of ancient fame. Masses and reefs of rock are scattered over the river-bed ; and on these round pillars with squared bases are placed in pairs five or six feet apart ; rough beams of stone are laid transversely on them, and a roadway made. More than one hundred pairs of pillars are so fixed at regular intervals, but as firm stances are indispensable, and the rocky shelves and reefs are not continuous but dispersed, the line of the bridge turns hither and thither according as a secure flooring offers for the bases of the shafts. And so the long, pillared structure winds across the river in sweeping curves, eminently picturesque, though unsatisfactory to an engineer. Pierced masonry parapets protect the road-way, which affords a safe passage for vehicles ; and the serpentine bridge is quite according to the nature of things in the eyes of Hindus, who say, "A river winds, and why not the bridge that crosses it ?"

Less than a mile below the bridge are the great Falls of the Cāvēry, where the river takes its first step downwards towards the plain country. There is a fall on each branch of the river on either side the island : that on the northern branch is most stupendous. For some distance above the fall the stream, much chafed and broken by rocks and islets, runs with arrowy swiftness till it rushes over a precipice nearly

two hundred feet high, thundering down in a vast, broad, foaming mass on the further side, and in four or five lesser cataracts on the nearer, for half the depth into tremendous caldrons, and thence pours out headlong in two prodigious rock-divided volumes, all white whirling water, amid great clouds of vapour, into a tumultuous seething gulf.

The falls on the southern side of the island, which is nearly a mile across, are in a line with those already described, but that branch of the river is much wider, probably 600 yards broad. The channel above is thickly sprinkled with rocks and small islets, and the precipice forms a long irregular semicircle, above 100 feet in height, down which the stream plunges in six principal sheets of white foaming water, separated by rocky barriers, feathered from top to bottom with trees, bushes, and plummy tufts of bamboo. One or two of the falls pour down in nearly unbroken sheets, others shoot down steeply sloping channels ; and in the central fall a vast body of water, pent in at the top, rushes with tremendous force down an abrupt incline for half the depth, and thence spreads out into a broad magnificent thundering cataract.

Some twenty years ago a mournful occurrence seemed to show that the malignant demon had not lost his hatred of intruders. A party had come to visit the falls from Bangalore, and one of them, a young lady, rashly endeavoured to reach a dangerous view-point on the brink of the river above the cataracts. The ground gave way, she fell into the headlong waters, and was instantly swept over one of the cataracts at a distance from the bank ; but her body was caught in a clump of bushes projecting from an intervening islet, and remained there for two or three days, swung to and fro incessantly by the rushing torrent.

Nearly two miles below the falls the island ends, and the arms of the river reunite ; there are few wilder spots than that meeting of waters ; the whirling currents clash together and hurry tumultuously

on along a deep ravine. Standing on the high bank overlooking this scene, the white gleaming crests of the falls on the southern arm can be seen over the intervening jungle, below, at the point of the island, a long spit of sand runs out, much haunted by tall water-fowl seldom seen in more frequented places—couples of quaint-looking spoonbills, side by side, all pure white except the black wings, their heads erect, and the broad yellow ends of their bills touching their breasts; gigantic storks, sable glossed over with green and purple, their long blood-red bills thrust spear-like forward; flocks of black ibises, their curved beaks and heads wattled over with scarlet warts; besides various herons and wading birds. Frequent hoof-marks on the smooth margins and sandbanks between the jungle and the river, show where in the morning and evening twilights the deer come to drink; and here and there broad cushioned footprints mark the presence of their striped or spotted enemies.

For fifty miles hence the river runs eastward in a long irregular curve, through what may be truly termed a howling wilderness—a savage billowy region of ravines and hills, seldom approaching mountain grandeur, but covered with thin thorny jungle, parched and stony, the abode of malarious fever. Water appears sparingly in the deeper hollows, and there the under-growth is thicker and rank grass grows high. Although “the line of desolation and the stones of emptiness” seem stretched over this forbidding tract, it abounds with wild animals, even more than deep luxuriant forests. Herds of graceful spotted deer; the tall dark Indian elk, and still taller but more clumsy nylghau,—whose eyes surpass the gazelle’s in large lustrous splendour,—haunt the silent recesses; and, never far from them, those perfect embodiments of grim beauty, the leopard and tiger. The Cāvēry flows through this dreary, dangerous region, in a narrow valley with sides rising steeply from the water’s edge for 200 or 300 feet to the general level of the country; but this part of its course is seldom looked upon

by human eyes, as for miles on either side there are no roads or villages. Human habitations only begin to appear when the face of the country becomes more level and open. On the southern side, where the jungle thins and cultivated land is seen, is a road, or rather track, available only for horses and pack-cattle, but still one of the principal communications with the country below the Ghauts, which runs across from point to point of the great bend of the river.

Some miles above this spot, up the river, there is a remarkable seldom-visited locality called the Smoking Rock. Near the mountains at the valley-top the river spreads into a broad expanse, the banks nearly level with the water, and from the middle of the flood a column, apparently of white smoke, arises and drifts away upon the wind. No rocks or fall are visible to account for this continually ascending cloud of spray-mist, for such it is; but the natives say there is a hole or chasm, four palm-trees deep, into which the water falls. Nothing, however, can be seen of this from the bank, and the smoke-like column seems to rise from the bosom of an unbroken stream. The effect is striking and peculiar.

On the bank opposite stands a hoary old stone temple, within the enclosure of which is a range of ten or twelve huge black lingam stones, each in a canopied cell: on the further side rise many-folded densely-wooded hills, above which looms the double head of the Sandal-wood Mountain. Not far below the Smoking Rock the wide river suddenly narrows to less than half its width, between rocky walls through which it rushes in mad boiling rapids and broken falls with a roar audible afar. Riding fast back, past the defile we had descended, we came to the Cavēripūram Fort which gives its name to the Pass—a large, massive, dismantled old building, picturesque in its decay, with a fine stone water-gate opening on the river.

And here the river finally leaves the high tableland and mountainous tracts through which it has long wandered, and begins its southward course, flowing almost straight,

"brimming and bright and large," for forty miles; but the country on either side is still poor and rocky, and its banks too high for irrigation. In this part of its course it passes three or four islets of a few acres each, higher than the flood-level, and covered with trees, to which, in June, July, and August, when the river is most swollen, and the islets surrounded by swift swirling torrents, innumerable water-fowl resort for breeding. The trees are filled with their large clumsy nests, and scores of various species of cranes, storks, and herons are continually sweeping round on wide wings or sitting in quaint files on the tree-tops. Gaunt bald-headed, bare-necked adjutants, storks all glossy black saving white necks, ibises wholly white except black heads and bills, snowy egrets, blue herons, cormorants, and grey pelicans, may be seen amongst them; but the different species keep apart, and nidificate together, like rooks. Desirous of obtaining the eggs of some of these birds, we determined to reach the islets, but this was not easy; the flooded waters were so swift and impetuous, and the only boats,—round saucer-shaped frameworks of bamboo covered with leather, just like ancient British coracles,—difficult to guide in the eddies of a flood. Launching, however, from a point a long way above, we contrived, with cautious and strenuous paddling, to hit an islet. Our advent caused great commotion amongst the feathered communities. Flapping from their nests, they circled round with hoarse croaking cries; and we obtained many kinds of large eggs, mostly white, some pale green. Bottle-birds' nests also hung by dozens from the bushes; and any detached rock in the stream, bearing a single tree, was sure to be chosen by some hawk or a crow for its breeding-place. Pea-fowl also abound on this part of the river; and a splendid cock might often be seen perched on a bare branch over the water, its glorious plumage shining in the sun. The floods, however, bring down disagreeable visitors to the islets, and it is necessary to move with caution amongst the bushes and heaps of cast-up rubbish, for snakes, scorpions,

and ill-favoured creeping things lurk on all sides, above and below. It is curious how the tribes of river-haunting birds adapt their breeding-times to the conditions most agreeable to their habits; the above-mentioned tree-frequenting species build during the summer months of flood, whilst terns, plovers, and sandpipers breed when the water is lowest, in February, March, and April; their dark-green or yellow black-blotched eggs may then be found in dozens on banks and sand-flats in mid-stream that are covered in the season of flood.

The stately stream flows on, and after thirty miles the sharp summit of the Trichinopoly Rock comes in sight. Six miles west of this the river is divided by the sacred island of Srirangam, round which it flows in broad branches, each half a mile wide. The southern retains its name, but the northern is called the Coleroon. This latter, from the point of the island to the bank, is bridled with a curb of stone, known as the Upper Anicut, a wall of massive masonry 800 yards long and seven feet high, built across the bed of the Coleroon, by which the water on the Cāvēry branch is raised to the level of the whole alluvial Delta of the rich and abounding province of Tanjore, over which it is dispersed by a network of countless irrigating channels. This most beneficent work was constructed in 1836 by Sir Arthur Cotton, at a cost of £20,000, and the annual continually increasing return now exceeds £400,000.

The beautiful island is a dozen miles long by one broad, and all its expanse covered with gardens, groves of fruit-trees, and rich cultivated fields. In its centre stands the vast seven-fold Srirangam Pagoda. Seven square enclosures stand one within the other, their walls twenty-five feet high and four thick; each side of the outermost square is a mile long. The enclosures are 112 yards apart from one another, and a lofty gateway surmounted by a tall tower, elaborately sculptured, is in the middle of each side of every square.

Two long bridges, each of thirty-two wide lofty arches, unite the island on either side

with the farther banks. Over these the high road leads to the famous rock citadel of Trichinopoly—a splinter from Mount Méru, hurled thither by the gods, say the Hindus. This solitary hog-backed mass rises at one end in a pointed crag 350 feet above the river, bearing a small shrine on the top. Houses and magazines surround its base, a curious street encircles it farther up, and a large fort-like temple occupies a platform half-way up, under the terminal peak. A broad stone stairway, enclosed and covered, leads up to the temple, and open steps wind round the peak to the top. On the covered flight a frightful catastrophe happened in 1849. Vast multitudes had ascended to worship on a festival, when, from some unknown sudden terror, as though inspired by Pan or the three-headed demon who in mythical times is said to have inhabited the rock, there was a confusion and headlong rush downwards; the covered stairway was choked with dead, and some 500 bodies were drawn from that fatal passage.

From the summit of the rock a prospect of surpassing beauty and interest is unrolled; close beneath lies the town, with its long regular streets, the crumbling palace of the Mussulman Nawabs of the Carnatic, pagodas, and mosques with tall slender minarets, and on the outskirts the white buildings and bungalows of the European cantonment. Round this historic rock war and contending races have surged for a thousand years. Kings of the old Hindoo dynasties of the south fought for its possession; then came the Mussulmans and the Mahrattas, the French, and lastly the English. Few citadels have witnessed more battles, sieges, more daring deeds, and varying fortunes.

From Srirangam the Coleroon branch

pursues its course with little change for sixty miles, till entering the sea near Porto Novo, a few miles from the colossal temple of Chillambram. This enormous Cyclopean structure strikes the beholder with amazement: blocks of granite forty feet long by five thick compose its walls; and these must have been brought from a hundred miles' distance. The propylæum before the gateway of the greatest of the four huge pyramidal towers, by which St. Paul's would seem flimsy, contains thirty-six monolithic pillars, six in a row, each thirty feet high, and supporting a roof of immense smooth blocks.

This giant portico leads into a court where stands a stupendous hall, the roof of which is borne up by one thousand massive columns, nearly forty feet high. In one of the towers hang festoons of stone chains, the rings of which are ten feet in circumference and two and a half in girth. Each festoon contains twenty links, and must have been made out of one piece of stone that could not have been less than sixty feet long. All are polished like glass. Though belonging now to the Siva sect, this marvellously massive temple is really dedicated to the unknown God: within it is a chamber without door or window, called the Ragāsiam, or Place of Mystery, in which the unseen nameless deity is believed to dwell. No mortal is known to have entered it; but there is said to be a secret entrance known only to one priest at a time, who whispers the secret with his last breath to his successor.

Here the Cavery splits into mighty irrigating channels, equal indeed to goodly rivers; and these again give off lesser channels, which are divided and subdivided in intricate watery labyrinths over the face of the land.



THE CITY OF KOBE, JAPAN.

OUR engraving conveys a very correct idea of the town and harbour of Kobe, Japan. Kobe is a city of 40,000 inhabitants, with a foreign community numbering 200. Its streets are forty feet wide, and they have been rolled and worked over until they have become as pleasant to look upon, and as comfortable for riding and walking as any of the streets or roads that we are familiar with in this country. The chief of them are lighted at night, and public order is preserved by an efficient police, who, like other government officials, are obliged to wear the foreign style of dress.

Kobe has one of the best harbours in Japan, and this fact has made it a centre of great commercial activity. One thousand foreign vessels visit this harbour every year. The importations amount in value to about £1,400,000 annually. The principal export is tea.

The people are always represented, in point of character, as frank in their manner, free in their speech, and sensitively alive on the point of women. Their women—and this a great test of the real civilization of any country—are well treated. "Japanese women are subjected to no seclusion; they hold a fair station in society, and share in all the innocent recreation of their fathers and husbands. The fidelity of the wife and the honour of the maiden are committed wholly to their own sense of honour, somewhat quickened, perhaps, by the certainty that death would be inevitable in the case of a detected lapse of virtue." This is the testimony of Mr. Drummond, who resided long in Japan; but there is a darker side of the picture in the existence of a legalised system of vice

which secures the virtue of the mass of women at the expense of what is virtually slavery.

In manners, woman makes the man. Thus a Japanese is usually a *gentleman* in the highest sense of the term. Having no common mode of enjoyment except in the society of refined ladies, he himself becomes refined. Even amongst the commonest people—brawlers, braggarts, loud-tongued disputants, dirty, sloven, or men of coarse, repulsive habits are seldom met with.

The festivals of the Japanese are very numerous. Thunberg gives the following description of one, called "The Feast of Lanterns":—

"'The Lantern Festival,' or 'Feast of Lamps,' is celebrated towards the end of August, and is called by the natives *Bong*. It lasts three days. It was originally instituted in memory and honour of the dead who, the islanders believe, return annually to their kindred and friends on the first afternoon of these games, every one visiting his former house and family, where they remain till the second night, when they are sent away again. By way of welcoming them on their arrival, the people plant stakes of bamboo near all the tombs, upon which they hang a great number of lanterns with lights, and those so close to each other that the whole mountain appears to be illuminated; these lanterns are kept alight till nine or ten o'clock at night. On the second evening, when the spirits of the defunct are, according to their tradition, to be sent away again, they fabricate a small vessel of straw, with lights and lanterns in it, which they carry at midnight in procession, with vocal and instrumental music, to the sea-shore, where it is launched into the water, till it either catches fire and is consumed, or is swallowed up by the waves. Both of these illuminations, con-



CITY AND HARBOUR OF KOBE, JAPAN.

sisting of several thousand fires, exhibit to the eye an uncommonly grand and beautiful spectacle."

None but personages of high hereditary rank dare presume to give a feast of the first order. A wealthy merchant must on



JAPANESE NOBLEMAN.

no account entertain his friends like a lord or prince. It is, however, believed that when a rich trader can conciliate all the spies that are watching over him—by

making them partakers of the banquet—he sometimes ventures to give, *sub rosa*, as grand a feast as any of his betters. In these feasts sackee (an intoxicating liquor)

is copiously drunk. The Japanese men are, from all accounts, much given to incontinence and drunkenness.

The social manners of the Japanese are far from being so commendable as their domestic manners appear to be. Their addiction to suicide, on the slightest occasions, is its most atrocious feature; their sense of honour is barbarous; and their thirst for revenge, on trivial provocations, is generally only appeasable by death.

Generally, the natives of Japan seem to merit the praise of being a cleanly people. All classes of them make very frequent use of the bath, and are scrupulous as to partial ablutions at certain fixed periods of the day. This alone does not insure cleanliness. The Turks bathe (or rather stew themselves) as often as the Japanese; but the Turk puts on foul unchanging clothes over a clean skin, and has generally a

house encumbered with filth, and swarming with bugs, fleas, and other intolerable vermin; the Japanese, however, contrives usually to put clean clothes over his clean skin, and is in most cases neat and tidy at home.

To every house of any pretension to respectability there is attached an apartment called a "Fro," which is fitted up with vapour-baths, and with warm and cold baths. One or the other of these the inmates use every morning and evening. The loose nature of their costume renders the operations of undressing and dressing very quick and easy. Unfasten the girdle that encircles the waist, and the whole of the simple habiliments drop at once to the ground. It is mainly to this practice of constant bathing that Siebold attributes the generally robust health and longevity of the people of this empire.

THE ROCK OF GIBRALTAR.

THE Rock of Gibraltar, which, among military men, is regarded as the key to the Mediterranean, has been in the hands of the British for the period of 150 years. It was in 1704 that the English, under Admiral Sir George

Rooke, besieged and conquered it from the Spaniards, with the loss of about sixty killed and two hundred wounded. In the following year the Spaniards attempted to retake it, but in vain; they again attacked the fortress in 1727, when they lost 3000 men in an attempt equally futile. The great siege, however, which drew the attention of the whole world, owing to the magnitude of the operations carried on, and which by its result established the high reputation of the British as garrison soldiers, commenced in 1779, and endured until February, 1783.

This fortified rock, which was the object of so protracted and desperate a conflict, is

above 1300 feet in height, and stands at the extremity of an isthmus which projects into the sea several miles from the main land. It is about seven miles in circumference, is so steep as to be totally inaccessible from the north side, which fronts the isthmus, and from the eastern side which fronts the Mediterranean. The south and west sides present a precipitous slope fortified with all the appliances, offensive and defensive, which the ingenuity of man can devise. It is the promontory which, with that of Ceuta upon the opposite coast of Barbary, forms the centre of the straits of Gibraltar from the Mediterranean Sea and Europa Point, which is the part of the mountain that advances most towards Africa, and is generally regarded as the most southern promontory of Europe.

The ancients had a fable that Europe and Africa were originally joined at this part, and that the two continents were riven

asunder by Hercules, and a passage thus obtained between the Mediterranean Sea and the Atlantic Ocean. Gibraltar, under the name of Calpe, and Mount Abyla, opposite to it on the African coast, were called the Pillars of Hercules, and appear to have been in very early ages regarded by the people dwelling to the east of them—including the Carthaginians, the Greeks, and the Romans—as the western boundary of the world. It was probably long before navigation penetrated beyond this limit. Even in after-times, however, when Spain became well known to the Romans, and a province of their empire, we do not read of any fort being erected on the rock of Calpe. It is doubtful if even it was the site of a town, as no Roman antiquities have ever been found, either on the spot or in the neighbourhood.

The promontory of Gibraltar is joined to the Spanish main by a neck of land so narrow, that from these aspects it has the appearance of an island. It is about three miles in length from north to south, varying from one-half to three-quarters of a mile in width, and from twelve to fourteen hundred feet in height. The rock is steepest towards the Mediterranean, and gradually declines towards the bay. But here, nature, as if to render Gibraltar inaccessible on all sides, has placed between the foot of this fortress on the west, and the bay of Algeciras, a deep swamp, which extends to the land gate, leaving between them only space sufficient for a very narrow causeway commanded by nearly one hundred pieces of cannon. Between this swamp and the bay a small dyke runs along by the seaside to confine the water; and within the enclosure of the fortress the marsh is bordered by a palisade, which begins at the foot of the mountain and terminates at the sea. From this point is distinctly seen the old mole, a kind of jetty, lined on either side with batteries; it entirely masks the new mole, which is half a league behind it.

The northern front of the rock is almost perpendicular; the eastern is full of frightful precipices; the southern, being narrow

and abrupt, presents hardly any possibility of approach even to an enemy in command of the sea. The western front, although nearly as abrupt as the others, may be approached by shipping from the bay, and on this side accordingly the attacks of assailants have always been presented. The town stands at the foot of the promontory on the north-western side. It is strongly fortified, but its chief protection is derived from the batteries on the neighbouring heights, which sweep both the isthmus and the approach of water. "The principal batteries," observes an historian, "are casemated, and traverses are constructed to prevent mischief which might arise from the explosion of shells. The principal strength of the place depends on the shortness of the line of defence, and the prodigious flanking fires which may annoy the enemy from the projecting parts of the rock on the north-east. The most extraordinary are the galleries excavated from the solid rock, in which loopholes are formed for the reception of cannon of large calibre. The guns are pointed to the narrow causeway, which alone gives a passage to the town. But the most striking part of the galleries is St. George's Church, scooped out of solid rock, about four hundred feet from the level of the sea, and filled with cannon. Over this Willis's battery is situated, having its artillery pointed in the same direction. On a level with the entrance is placed another battery, called the Devil's Tongue, which flanks one entrance, and on which it is said six hundred pieces of artillery might be brought to bear on an attacking enemy. The whole rock is lined with batteries to the water's end from the land gate to Europa Point; yet this, being deemed the weakest part of the fortress, was that on which the attack was made during the last memorable siege. The Spaniards hoped to silence and level these forts by their floating batteries, and then with an army of thirty thousand men, which they had embarked on board small crafts at Algeciras, to carry the fortress by storm. The upper part of the Rock of Gibraltar

consists of excellent limestone resting on a base of granite, and containing a number of caverns. Besides these natural excavations others have been effected by the force of gunpowder in the centre of the mountain, and form vaults of such height and extent, that in case of a siege they would contain the whole garrison. The caverns (the most considerable is the hall of St. George) communicate with the batteries established all along the mountain by a winding road, passable throughout on horseback.

The extreme singularity of the place has given rise to many superstitious stories, not only amongst the ancients, but even those of our own times. As it has been penetrated by the hardy and enterprising to a great distance (on one occasion by an American who descended by ropes to a depth of five hundred feet), a wild story is current that the cave communicates by a submarine passage with Africa. The sailors who had visited the rock, and seen the monkeys which are seen in no other part of Europe, and are only there occasionally and at intervals, say that they pass at pleasure by means of the cave to their native land. The truth seems to be, that they usually live in the inaccessible precipices of the eastern side of the rock,

where there is a scanty store of monkey grass for their subsistence; but when an east wind sets in it drives them from their caves, and they take refuge among the western rocks, where they may be seen hopping from bush to bush, boxing each other's ears, and cutting the most extraordinary antics. If disturbed they scamper off with great rapidity, the young ones jumping on the backs and putting their arms round the necks of the old, and as they are very harmless, strict orders have been received from the garrison for their especial protection.

Gibraltar derives its chief importance from its bay, which is about ten miles in length and eight in breadth, and being protected from the more dangerous winds is a valuable naval station. It is formed to the eastward by the promontory of Gibraltar, with its isthmus of sand, and to the westward by the mountains, by the bases of the mountains behind. Algeciras, which terminates in the sea near Tariffa, a flat coast, backed by several small heights, forms the head of the bay. On the western side is situated the pretty town of Algeciras, which the Spaniards have fortified since Gibraltar has been in the possession of the English.

AFRICAN FOLK LORE.



ERR ERNEST MARNO, an Austrian gentleman, one of Colonel Gordon's companions in the expedition which the Khedive despatched, under that daring officer's command, to the Soudan and the country generally about the Equator, has published an account of what he saw and heard during his wanderings with the colonel

from 1874 to 1876, both years inclusive.

One of the most interesting portions of the book is a collection of fables relating to animals—fables current throughout the entire region, and exercising as strong a spell over the listeners as the stories of Arabia themselves. They are all founded upon the cunning and mischievous disposition of a near relation to Master Reinecke Fox—namely, the jackal, who is introduced to us under the name of Abu'l Hossein, and, both by his extraction and his character, proves unmistakably the connection between these fables of the Soudan and the legends of

the Indo-Germanic races concerning animals. Considering the rarity of any creations of the intellect from the interior of Africa, we think our readers will welcome the fable of "ABU 'L HOSSEIN AND THE CROCODILE."

A great crocodile, having chosen in a river a spot whither men and beasts were compelled to come, for the purpose of drinking, lay in ambush for victims. Directly the animals perceived this, they abandoned the spot, and, when they wished to slake their thirst, sought one far away. Abu 'l Hossein, however, did not feel inclined to take so much trouble, so he pulled out of a thicket on the bank a long reed, and, seating himself with it on a tree overhanging the glassy stream, drank very comfortably, and without danger, whenever he felt inclined. The crocodile, observing this, waxed exceedingly wrath, and begged the ant to be kind enough to sting Abu 'l Hossein in the lower portion of his back when he drank again. So, when Abu 'l Hossein was next seated on his tree, and drinking through his reed, the ant stung him with a will. Suddenly starting up, and letting go his reed in order to scratch himself, Abu 'l Hossein fell into the water, where the crocodile was lying in wait for him.

"So I have got you at last, my fine fellow!" said the crocodile. "It is all up with you."

"What do you intend doing with me?" inquired Abu 'l Hossein. "My flesh is so hard and tough, that it is utterly impossible you can enjoy it unless it is properly prepared."

"Good!" replied the crocodile. "Then you shall be roasted."

Hereupon he caught hold of Abu 'l Hossein and delivered him over to his old blind grandmother, who was to roast him. The paw by which the grandmother held him was to belong to her, and the rest to the crocodile, who went off to fetch some fire. In this desperate situation, Abu 'l Hossein spied a piece of wood floating down the stream. Grasping it with the

paw he still had free, and offering it to the old blind grandmother crocodile, he exclaimed :

"Here ! catch hold of me by the head, or I shall escape from your custody."

The grandmother crocodile clutched the piece of wood held out to her, and let go of Abu 'l Hossein, who made off as quickly as he could.

"What are you holding that piece of wood in your hand for?—and what have you done with Abu 'l Hossein?" asked the crocodile when he came back with the fire.

The old grandmother would not at first believe she was holding in her hand a piece of wood, but thought the crocodile spoke as he did in order to escape the obligation of giving her the share of the spoil to which she was entitled. She reprimanded the crocodile, who abused her in return, and the two were highly incensed with each other.

At last the crocodile landed for the purpose of pursuing Abu 'l Hossein. In carrying out his intention, and boiling over with rage, he kept going farther from the river, till thoroughly exhausted by his unaccustomed exertion over the parched ground, by the heat, by thirst, and by hunger, he sank down on the arid plain, and was nearly expiring of inanition.

At this juncture a man came along with a camel. He saw the half-dead crocodile, and was profoundly astonished on hearing himself thus addressed in a faint voice by the latter :

"Be good enough to take me back to the river. I swear that I will never again do any harm to a member of the progeny of Adam."

The man felt pity for the crocodile, and bound him on the camel.

"Shall I put you down here?" he asked his passenger, when they reached the bank.

"Take me into the water where it is deep" replied the crocodile ; and the man, taking him into the deep water, unbound and set him free. But the crocodile now seized the man, and said :

"Just listen. I shall keep you unless you give me your camel."

"But you promised you would never again harm any human being."

"Yes," answered the crocodile; "but to-day I am very hungry. It is no use; I must have you or your camel."

A hyena, who happened to be passing along the bank, was requested by both disputants to decide the question. The hyena did not wish to make an enemy of the man or of the crocodile. In order, however, to manage so that the former might escape, she said to the crocodile:

"Whenever you catch a man, be sure not to devour him in the water, for if you do he will ruin your digestion."

As chance would have it, Abu 'l Hossein now reached the spot. The hyena told him the story, and asked what was to be done. The crocodile too and the man cried out that they would accept Abu 'l Hossein as umpire.

"I do not hear you well," remarked the latter. "Come both of you on land, in order that I may listen to what you have to adduce and then decide."

The man and the crocodile now came on land. Abu 'l Hossein asked the former what had taken place, and the man told him.

"The probability is that you bound the crocodile too tightly, thereby hurting and making him angry," said Abu 'l Hossein,

after he had heard an account of all the circumstances.

"Yes, yes!" cried the crocodile; "he bound me so fast that I could not breathe, and even now all the bones in my body ache as though they were broken."

"I cannot give a decision unless I see with my own eyes the whole thing acted," observed Abu 'l Hossein. "Allow yourself to be once more bound by the man as before."

"Good!" said the crocodile, "I will let him bind me, and then you shall decide."

The man bound the crocodile as he had previously bound him.

"Was that how he did it?" asked Abu 'l Hossein.

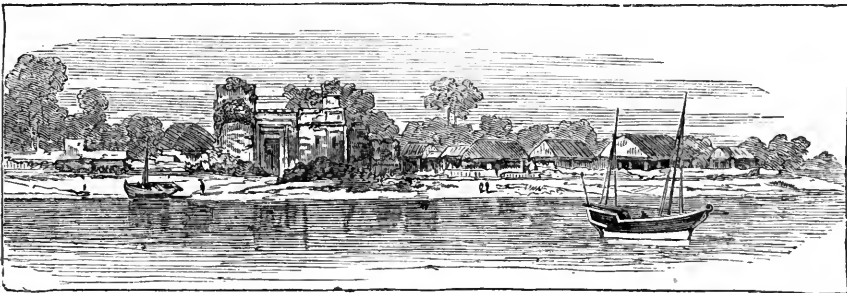
"No, he bound me more tightly," replied the crocodile.

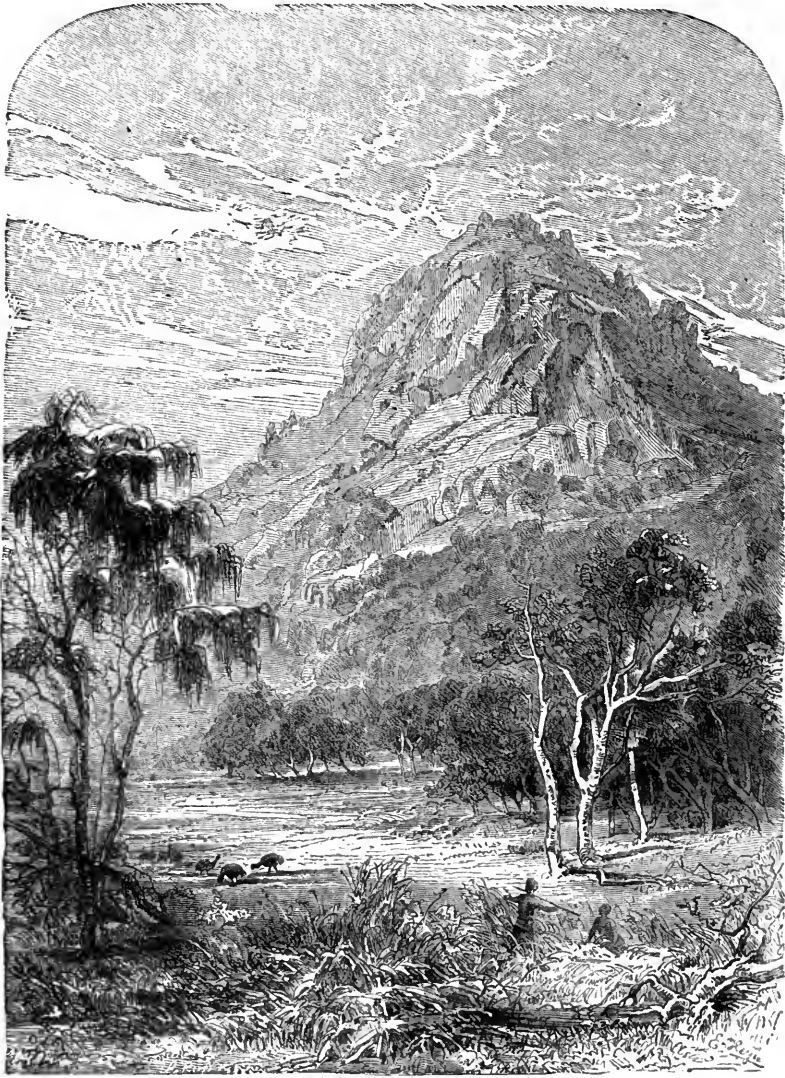
"Good!" observed Abu 'l Hossein; "bind him more tightly." And the man proceeded to do so, until the crocodile cried out:

"Enough, enough! that is how he did."

"Then," said Abu 'l Hossein to the man, "you must have been decidedly mad to bind the poor crocodile like that. When Allah delivered into your hands such a heap of meat, how was it you did not forthwith dash out the scoundrel's brains?"

On hearing these words, the crocodile saw to what they were leading, and whined piteously for mercy. But the man killed him, and carried his flesh home.





PEAK TANGULLA, AUSTRALIA.

AUSTRALIA.

AUSTRALIA forms the main portion of Australasia, and is the largest island on the face of the globe. It extends from $10^{\circ} 4'$ to $39^{\circ} 10'$ S. lat., and from $113^{\circ} 15'$ to $153^{\circ} 35'$ E. long. Its nearest point to Asia is situated at a distance of 1,600 miles S E. of Singapore.

the extremity of the continent in this direction, the intervening space being occupied by the East Indian Archipelago, chiefly in the possession of Holland. This vast island-continent is calculated to cover an area of 2,983,386 square miles, and has a rapidly increasing population, which in 1877 was estimated at 2,500,000.

Australia is divided into the five colonies of New South Wales, Victoria, Queensland, South Australia and Western Australia. A large part of the interior, particularly in the west, consists of sandy and stony desert covered with a plant called spinifex, and containing numerous salt-marshes ; but nearly all round the coast, and the eastern portion of the island, is a rich grazing country, admirably adapted to the rearing of sheep, of which there were over fifty-seven millions in 1877. Sheep-farming is the pre-eminent branch of industry, and it is as a wool-producing country that Australia is rising into importance. Years of complete drought occasionally occur, constituting the greatest impediment to the progress of the colonies, often followed by years of flood.

The principal rivers are the Murray, with its tributaries, the Murrumbidgee and Darling, in the S.E. part of the island, which falls into the sea on the south coast ; on the east coast, the Hunter, Clarence, Brisbane, Fitzroy, and Burdekin ; on the west, the Swan, Murchison, Gascoyne, Ashburton, and De Grey ; and the Victoria, the Flinders, and Mitchell, which debouch into the Gulf of Carpentaria, on the north ; but they are of little service in facilitating internal traffic. Minerals comprise gold, copper, iron, and coal in large quantities, silver, mercury, tin, zinc, etc. The settled portions are intersected by railways already extending to 2,800 miles, connecting together all the principal towns in the island, and direct communication is established with England. Australia was discovered by the Portuguese in 1540, but little was known of it until after Dampier, Wallis, and Cook explored its coasts. The favourable report of the latter was followed by the first British settlement of Port Jackson (Sydney) in 1788. The aborigines are rapidly becoming extinct ; their number now, probably, does not exceed 200,000.

The scenery of Australia is very varied. It has hill and dale, forest and plain, river scenery, and, being an island, a magnificent coast line. It is a land of contrarieties, in

which everything, to the European notion, seems turned upside down. Situated in the southern hemisphere, nearly opposite to the position of Great Britain in the northern, the seasons are of course the reverse of our own, midsummer falling in January and midwinter in July.

In a region of such extent—the distance from Sydney to Perth corresponding to that between Edinburgh and Constantinople—there are, of course, large tracts unavailable for the support of civilized man, consisting of peat swamps, saline marshes, rocky hills, stony and sandy plains, either absolutely sterile or productive only of “scrub”—the colonial term for a species of stunted, unprofitable brushwood. But there still remain millions of unoccupied acres of the greatest fertility, adapted to the growth of grain, and more especially for the sustenance of flocks and herds, which may be multiplied for centuries without fear of overtaking the natural provision for them. For miles and miles the character of the country has been often compared to the park scenery around the seat of an English noble. Trees of interesting appearance occur solitarily, not more than three or four to the acre, or form small clumps ; sheep whitely dotting the landscape, of which there are now many millions in Australia, yielding the finest wool, and placing it at the head of wool-growing lands. Amid the apparent sameness of the forest may be often found spots teeming with a gigantic and luxuriant vegetation, sometimes laid out in stately groves, free from thicket or underwood, sometimes opening on glades and slopes, intersected with rivulets, carpeted with the softest turf, and which lack only the thatched and gabled cottage, with its blue smoke curling amid the trees, to realize a purely European picture.

The climate is remarkable for its dryness. Owing to this circumstance and to the absence of towering mountains covered with perpetual snows—for such mountains as those of the Peak of Tangulla, represented in our illustration, are not to be compared with Alpine or Pyrenean ranges

—there are no vast rivers like those which are found in other great regions of the globe, and permanent waters are generally scarce. The streams, though subject to extraordinary floods from heavy rains in winter, are largely reduced in summer through drought, and commonly either lose their continuity, becoming a series of detached ponds, or are converted into stony highways.

The only atmospheric annoyance is the

hot wind, which occasionally blows in summer from the interior, and seems to indicate in that direction the existence of vast sandy deserts, which, baking beneath a tropical sun, give a fierce heat to the breeze that passes over them. Volumes of impalpable dust and gritty particles are raised and swept along by this blast from the central fiery furnace, becoming a torment and a danger to the traveller. On the whole, however, Australia is a pleasant country.

COALY TYNE.

NOTED in history, renowned in ballad, the "Water of Tyne"—to use the phrase of Jock o' the Side—has in latter days had a reflected reputation—one derived in very large degree from the mineral field it traverses, the coals it carries, the vessels it bears, and the oarsmen it has trained. Its southern branch rises in Knaresdale and flows to Hexham, where it unites with a branch from the bleakness of the Borderland, and thus formed, the Tyne rolls an augmenting course by "canny Newcastle," under the soot-stained memorial of Bede, to Tynemouth, where the cold North Sea swallows it. It flows for twenty miles over coal measures, and thus for generations—before the coal trade of other districts had become developed—it was the water-way of the collier fleet. From the meeting of the waters until the vicinity of Blaydon is reached, the course of the Tyne is through a land like that of the lotus-eaters—"where all things always seem the same"—and where its course is through fields of green and by banks little pressed by industrial weights, but when the old boundary of the barge is reached, we come into a region

classic in the annals of trade, and one which gives such a panorama in its course to the sea as perhaps no other river in England can.

Sailing down the river from Stella Staith to Shields, right and left, with little intermission, there are wharves and works, collieries and chemical factories, ship-yards and staiths, coke ovens and colour works, furnaces and fuel works, potteries and paper mills, and a mass of other indications of the varied trades that have sprang up on coaly Tyne. It is only an industrial oasis in the strip of riverside from Blaydon to Scotswood; and below to the King's Meadows there is a resumption of the charming dullness of green villa-dotted fields; but Elswick takes up the strain which Whittier has sung, "Blast on blast the sooty smithy jars," and thence to the sea the Tyne becomes one long dock. The "long unlovely streets" of Newcastle stretch themselves; the stream is impinged on by lines of rails, by quays, works, and mills; and pressed by the craft that have come above bridge. By gas works and stations, by the primal engine factory of the world, by the noisy babulous quays, where the Tynesider has often, in Thackeray's words, "taken off its hat and huzzaed to success in life," whilst the rough northern

burr has grown homely and pleasant, and then we are at one of the lions of New-castle—its high level bridge.

It is a striking scene by day to leave the low stream and look down upon it from the heights of the bridge ; to look on the dingy houses stretching in terraces down to the wharves that abut on the stream, on the factories where trade “flings its clamorous iron flail,” on the river rolling its dark tide below the cloud of smoke down through a thick border of mills and drops, and on the barges and vessels that discharge or receive their cargoes there, as well as the noisy little tugs and river boats threading the intricacies of the stream. But at night the scene becomes spectacular ; the course of the river would be hidden in the enveloping smoke were it not for the lamps that mark the streets by its side in waving lines of light, for the glow from furnaces, and the parti-coloured lights shining from quay, landing-stage, and mast, and reflected in the dark waters. Even then the “forges glow, the hammers all are ringing,” down the river side ; there is the rattling and rolling of trains over the bridge, and the reflection of their red-litten windows is flung down on the waters, whilst the roar of the traffic of the great town comes incessantly, though dulled by distance.

Down from the bridge to the sea, by night or day, the route is one the very names of which bring up the memories of the victories of the Tyne. There are chemical works unsurpassed for extent in the world, probably, collectively ; there, blast furnaces which, small and disused now, have been the pioneers in the building up of a great trade ; there, “Wallsend” recalls first the memories of those who built this, the commencement of an enduring memento, and the name of a branch of an industry famous all the world over ; yonder, Jarrow takes us back from its busy and bustling present, from the glare of its iron manufactories and the clang of its rivetters to the lonely monk who, in its monastery, kept up through the crawling years the light that throws its gleam in on the dark

ages he lived in. Then through the midst of timber yards and coal docks, of glass works and graving docks, beneath the shade of the green mound between Whitehill and Tynemouth, and we are approaching the spot where “glooms the dark broad sea.”

It is not the sight of a “river clear as crystal,” nor one like that whose banks the pilgrims trod, “where were orchards, vineyards, and gardens, and their gates opened into the highway ;” it is that of a commercial river which has few compeers. Except the Mersey, no other river in the world has so large an export trade. From it yearly nearly twenty thousand vessels sail, of increasing size ; from it more than seven million tons of coal are shipped, while three thousand vessels enter with cargoes. It builds a hundred vessels yearly ; it gives to the customs a revenue approaching half a million annually ; whilst building on these varied supports, but with the ultimate foundation of its renowned coal deposits, there have grown up industrial centres such as make the banks of the Tyne workshop, factory, mart, and dwelling of the children of commerce.

The old days of Pons Ælii are passed ; the castle that standeth on Tyne is needed no longer “agayne the Scottes the country to defende,” as the old chronicler phrased it ; kings are no longer the residents of the Tyneside town, but another monarch there fixed his abode, and draws tribute from the stores of “bottled sunshine,” and since then, increasingly, the Tyne has lost the pomp and circumstance of war, and known the victories of peace. And though the days of the picturesque and the quaint in black diamonds—the days when the “keel row” was more than a favourite local song, and “through Sandgate” more than a memory of the keelmen—though some of the once pleasant denes and little valleys about the town are brick-and-mortar covered now, there is in our modern days that “jingling of the guinea” which heals many wounds, and which also gives to an enlarged population its daily bread, and to an expanded commerce its motive power.

A STORY OF THE BASTILLE.



THE following events, which shed an interesting light on French manners and morals and the state of society at the period, took place but a short time before the birth of Louis XIV., the "Grand Monarque" of France.

Anne of Austria, the mother of that sovereign, and queen of Louis XIII., had, partly by the machinations of the wily Cardinal Richelieu, who had his own ambitious purposes to serve, and partly by her own imprudences, been for some years estranged and separated from her husband. She is accused by historians of having carried on a forbidden correspondence with her relations in Spain, and of having held various communications with other powers at that time engaged in actual hostility against France. There may have been morally no crime in such acts as these, and, considering the feelings of an accomplished and enthusiastic woman towards her personal friends, much might be said in extenuation of them; but they were doubtless illegal and unconstitutional, and the suspicion of her guilt exposed her to the indignation both of the king and his minister. That she was not entirely guiltless—not merely of an interdicted correspondence, but of making it the medium of political intrigue—has since been proved; but in apology it may be said that she was suspected and persecuted before she was guilty, and then was weak enough to revenge herself upon Richelieu by endeavouring to defeat his designs by means of the offence for which she had been unjustly punished. Thus, it is now well known that she endeavoured by her letters to prolong the hostility of the Duke of Lorraine to France; and when at length the cardinal had persuaded the duke to disband his army, she

sent to the latter, by an especial messenger, a fool's cap, as a commentary expressing her opinion of his conduct.

The name of this messenger was La Porte, a name well known in the court history of the period. He was a man remarkable for his incorruptible fidelity, and no less remarkable, be it said, for the unscrupulous sacrifices he was ever ready to make, and did make—sacrifices not only of personal ease and self-interest, but of truth and moral obligation—in order to preserve that one virtue of fidelity intact.

The queen's chief agent in her intercourse with her relatives and friends was the Marquis de Mirabel, the Spanish ambassador in the Low Countries. A letter to him from the queen having been intercepted, the perusal of it gave Richelieu a clue to the nature of the correspondence going on. He immediately suspected La Porte, who was the queen's attendant, of being her accomplice. Anne, at this moment, had quitted Paris, leaving her faithful attendant behind her to conclude some arrangements which she had not had time to finish; and with him she had left a letter to be conveyed to the Duchess of Chevreuse, an *intrigante* whom the minister had banished the court. La Porte was to have given this letter for conveyance to a person of the name of Thibaudière; but Thibaudière had been bribed by Richelieu to betray La Porte or any partisan of the queen who might trust him. When offered the letter to the duchess, he begged La Porte to keep it till the following day, to which the latter, suspecting nothing, assented.

As La Porte, after visiting a sick friend, was returning home that night, he was seized, on passing the corner of the Rue Coquillière, by a man, who, advancing behind, placed his hands over the prisoner's eyes and pushed him towards a coach. Ere he could resist, he found himself

grasped by a strong party, and was forcibly hoisted into the carriage. The doors, which were without glass, were closely shut, and he was whirled off in darkness, without knowing why or by whom he had been arrested. When at length the vehicle stopped, some gates, through which it had passed, were closed behind it, the doors were thrown open, and the unfortunate attendant of the queen found himself in the court of the Bastille, with five of the king's musketeers seated with him, and a detachment of some dozen more waiting to receive him.

They commanded him to alight, and, without ceremony, began searching him. The letter of the queen to the duchess was found on his person, and was of course seized, and La Porte was then passed over the drawbridge, between two ranks of musketeers with their matches lighted, and with an ostentation of grave ceremony which impressed him with the belief that he was charged with a crime of deepest dye. In the guardhouse he was detained for half an hour while a dungeon was prepared for him, which his gaolers took care to inform him had last been tenanted by a malefactor who had just been led out to execution. He was then conducted to that stone tower in which Richelieu was in the habit of placing those of his prisoners whom he had destined to a speedy death, and was there thrust into a dungeon closed with three doors—one within, one without, and one half way through the thick wall. This cell was lighted only by a loophole pierced through the thick masonry, with an aperture of only three inches in diameter, and defended from approach by three separate iron gratings. A bed and a table were the sole furniture, with the exception of a straw pallet for the use of the soldier who was to keep guard over him.

La Porte endeavoured to eat his scanty supper, and then lay down on his bed. He had not yet slept when he was roused by the report of a musket. This was followed by a loud call to arms. Then the doors of the dungeon were heard to open

without, and a stranger was thrust in upon them in the dark. The new-comer, upon being questioned, proved to be a young man, whose history affords a singular illustration of the state of life among a certain section of the wealthy class of the period. He had committed no crime or offence of any kind, but had been sent to the Bastille, *at the instance of his own mother*, for the double purpose of keeping him out of harm's way, and of placing him in a position where he would gain experience of the villainies, the hypocrisies, the delusions, and the treacheries of courtly life before he began to mingle in it, and would thus be prepared to combat the machinations he would be sure to meet with, and escape becoming their victim. But he had grown tired of his college, and, with a couple of his friends similarly situated, had conspired to effect his escape. Having the "liberties of the Bastille," they had been able to communicate with their friends without, and had fully matured their plan; but at the moment of execution the moon shone out, and discovered them in the act of scaling the walls. The sentinel on duty gave the alarm by firing his musket; they were caught *flagrante delicto*, and committed separately to close confinement.

On the following day La Porte was summoned from his dungeon by a sergeant. Alarmed at the summons, he demanded its purport, but could obtain no reply. At the foot of the stairs he was surrounded by soldiers, and led across the court through a crowd of prisoners in the enjoyment of "the liberties," who flocked to see him pass. They shrugged their shoulders, and plainly regarded him as a doomed man; one of them recognising him as the attendant of the queen, placed his finger on his lips—an admonition which La Porte, as the depositary of his royal mistress's secrets, hardly needed.

They led the prisoner to the governor's room, where he found the well-known La Potterie, a creature of Richelieu's, who began to question him as to the letter found on his person, asking who was to have been

the bearer of it. La Porte lied unblushingly, and said that he intended to send it by the post. La Potterie replied that it was plain from expressions in the letter that it was to be delivered by a messenger, who would impart additional information; and La Porte, adhering to his falsehood, the judge produced a number of other letters, from which the prisoner saw with horror that his apartments had been entered and his papers seized.

Though the letters which had been seized were in cipher, they fortunately contained nothing of great importance; but the sight of them threw poor La Porte into terror and apprehension, lest those who had searched his apartments had discovered a secret recess in the wall, most artfully contrived, in which the most important of his documents were concealed, together with the key to the cipher in which they were written. If these were discovered, he felt sure that he was a dead man. He controlled his terrors, however, as well as he could, and tried to assume an indifferent behaviour. As La Potterie proceeded with his questions it became apparent that he was not in possession of the information which the secret repository would have afforded, and La Porte regained the calmness he had assumed. He soon saw that Richelieu had no certain knowledge of anything against the queen, and he therefore resolved unscrupulously to deny everything which he was not forced to confess. The examination lasted two hours, but La Porte returned to his dungeon without having spoken a word that could compromise his mistress.

La Potterie resumed the examination again and again. On the third visit he informed the prisoner that a letter from the queen to the Marquis de Mirabel had been intercepted and shown to her, and that she had not only avowed the correspondence, but had stated that La Porte was the secret agent by whom it was carried on. This was a gross falsehood, devised to make the prisoner confess; and though La Porte suspected such to be the case, his know-

ledge of the queen's character led him to fear that it might yet be true. He was now left to meditate on his position, and passed some hours in agonies of anxiety.

Just as he was stepping into bed, the doors of his dungeon flew open, and a sergeant at the head of an armed escort ordered him to descend to the court. La Porte, convinced that they were going to put him to death, besought the sergeant to tell him whither he was going, but obtained only an evasive reply. In the court he found a carriage and a body of archers, and he felt assured that his last hour was come. In this state of terror he was carried through all the ordinary places of execution in Paris, but instead of stopping at the scaffold, as he expected, was conducted to the Palais Royal, and there ushered into the presence of Richelieu himself. Here he underwent a fresh examination from that stern prelate, who plied him with cunning questions in rapid succession, but without eliciting the information he sought. Baffled by the coolness of La Porte, who adhered to his first statement, he tried to bribe him by promises of reward, assuring him at the same time that he could betray no trust, as the queen herself had made a full confession. La Porte knew this last statement to be false, because, had the queen confessed, Richelieu would not have been so ignorant of certain grave facts as he showed himself to be.

Finding promises and threats alike useless, the prelate, with a view to confuse the prisoner, repeated the questions which La Potterie had asked respecting the letter directed to the Duchess of Chevreuse, and demanded who was the person that should have delivered it. La Porte replied, as before, that he was going to send it by the post. "You are a liar," said Richelieu, in a vehement passion, "you would have sent it by Thibaudière; you offered it to him the day before. As in a trifle of this nature you do not speak the truth, you cannot be believed in anything. Now, then, what do you say to that?"

La Porte, seeing that Thibaudière had

betrayed him, coolly replied that he *had* said what was not true in this matter, and that he had done so because he did not wish to compromise a gentleman, his friend, for a matter which, as his eminence had observed, was of so trifling a nature. The equivocation was ingenious, and Richelieu, with a sneer, allowed it to pass. He then commanded La Porte to write to the queen, denying that he had aided in the correspondence which she had acknowledged; but La Porte replied that he dared not address such a letter to his mistress. Richelieu rejoined angrily, and ordered the prisoner back to the Bastille. "You promised," said La Porte, with singular assurance, "that I should not be sent to the Bastille if I told the truth."

"But you have not told the truth," said the cardinal, "and back you go."

La Porte was made to sign his deposition, and then conveyed back to prison. Richelieu, irritated as he was, could but admire the firmness and fidelity of the queen's attendant, and he exclaimed bitterly, "Oh! that I had but one person so devotedly attached to me."

In spite of his refusal, La Porte was subsequently compelled to write a letter to the queen, and he was soon shown an answer, apparently signed by his mistress, commanding him to answer truly to all questions that should be put to him. But he remained still as uncommunicative as ever, not being convinced of the authenticity of the letter. He was then forced to write again and again to the queen, who all this time was in agony lest he should be induced to confess facts which she had repressed, or should be put to the torture for denying what she had acknowledged. In this terrible strait the queen had recourse to a friend, the amiable Madame de Hauteforte, who undertook the perilous and difficult task of conveying to La Porte, in a dungeon of the Bastille, accurate information as to what the queen had really confessed, and what she denied.

Disguised as a domestic servant, Madame de Hauteforte went to the grate through

which the prisoners who had the "liberties of the Bastille" were allowed to speak to their friends. There she found means to interest in her favour a gentleman of the name of De Jars, who undertook to convey any papers she might entrust to him to La Porte. As La Porte was allowed no visitors, and was day and night in presence of a musketeer, who kept watch over him, the undertaking of De Jars gave small promise of success. He performed it, however, to admiration, in the following ingenious manner: having access to the top of the tower in which La Porte was confined, he bored a hole through the roof into the topmost story, in which were confined some prisoners of no note from Bordeaux. He easily induced these men to pierce the flooring of their room to that below, which was then occupied by the Baron de Tenence and another gentleman. The baron and his friend as readily made a third hole into the dungeon of La Porte. The whole of the prisoners, in fact, entered eagerly into the conspiracy to defeat their gaolers, to which they were nerved as much by hatred to the minister as by charity towards their fellow prisoners. An easy means of communication was thus soon established between De Jars and La Porte. As soon as the soldier on guard left the dungeon of the latter, notice was given to those above, and down came a cord through the three apertures, bearing the notes of De Jars, and returning with the answers of La Porte—which latter were written with ink made from burnt straw and oil saved from the salad of his supper. It was not long ere, by this means, he had imparted to the queen the joyful intelligence that he had not betrayed her, and had obtained in return such information as secured his own life from peril.

All this was accomplished just in time. Richelieu, determined to get at the truth, sent the infamous and sanguinary Lafeymas to try his arts with La Porte. This man left no means untried to cajole, to terrify, or entrap the prisoner. He threatened, he promised, he lied; he embraced, he kissed

him; and, finding all this in vain, he suddenly changed his tone, and, drawing forth a paper, showed La Porte his sentence of condemnation to the question ordinary and extraordinary. He then took him down to the chamber of the rack, and showed him all the instruments of torture, causing the sergeant to explain the use of the planks, the pulleys, the wedges, the screws, and to dilate upon the agonies which they caused.

Whatever La Porte may have felt at the exhibition of this chamber of horrors, he was now perfectly well prepared to escape becoming a victim. Pretending, however, to be profoundly moved, he now acknowledged that he had something to confess if one of the queen's attendants were brought on her part to command him to do so. Lafeymas asked which of the attendants he would choose. La Porte named La Rivière, an intimate of the judge, and who he knew would not scruple to say anything the cardinal wished. Lafeymas, overjoyed, apprised Richelieu of his success, and in a few hours La Rivière was confronted with La Porte, who commanded him in the name of the queen, whose message he affected to bear, to reveal everything that he knew concerning her.

La Porte, assuming the air of a man delivered from a heavy responsibility, said that, such being the case, he would confess everything, though, had he not received her majesty's command, he would have died a thousand deaths sooner than have betrayed her secrets. He then deposed freely to precisely those facts which he knew by his secret instructions the queen had avowed, and denied, with the frankest air in the world, that anything else had taken place.

Completely deceived by the similarity of the confession, and convinced that he had elicited the truth, Richelieu abandoned all further persecution of the queen and her faithful attendant. For once in his life his fraudulent policy had found its match, and was defeated by stratagems superior even to his own. La Porte was released from the Bastille; the king sent for his wife, and became reconciled to her after years of estrangement and separation. Within twelve months she bore him a son, who was afterwards Louis XIV., the proudest monarch France has ever seen. On the death of Louis XIII. La Porte was rewarded for his fidelity by being appointed gentleman of the bed-chamber to the young king, whom he used to regard as the child of his obstinate reticence.

A MALAGASY BANQUET.



DURING his travels in Madagascar, M. Charnay was the guest of one of the queen's officers, and from his account we condense the following description of the feast:—

"It was eight o'clock when the company arrived. They were preceded by the Commandant's band, consisting of a frightful trumpet and a tambourine—and accompanied by a squad of five privates and a corporal, the whole strength of the garrison. They all marched in military

step, with a comic gravity which reminded one of the marching of mock soldiers on the stage. The corporal, who was very proud of his men, commanded in a loud voice their manœuvres; and, when at last they stopped, under the verandah, they all uttered the most hideous cries, which we were told formed some salutation in honour of us.

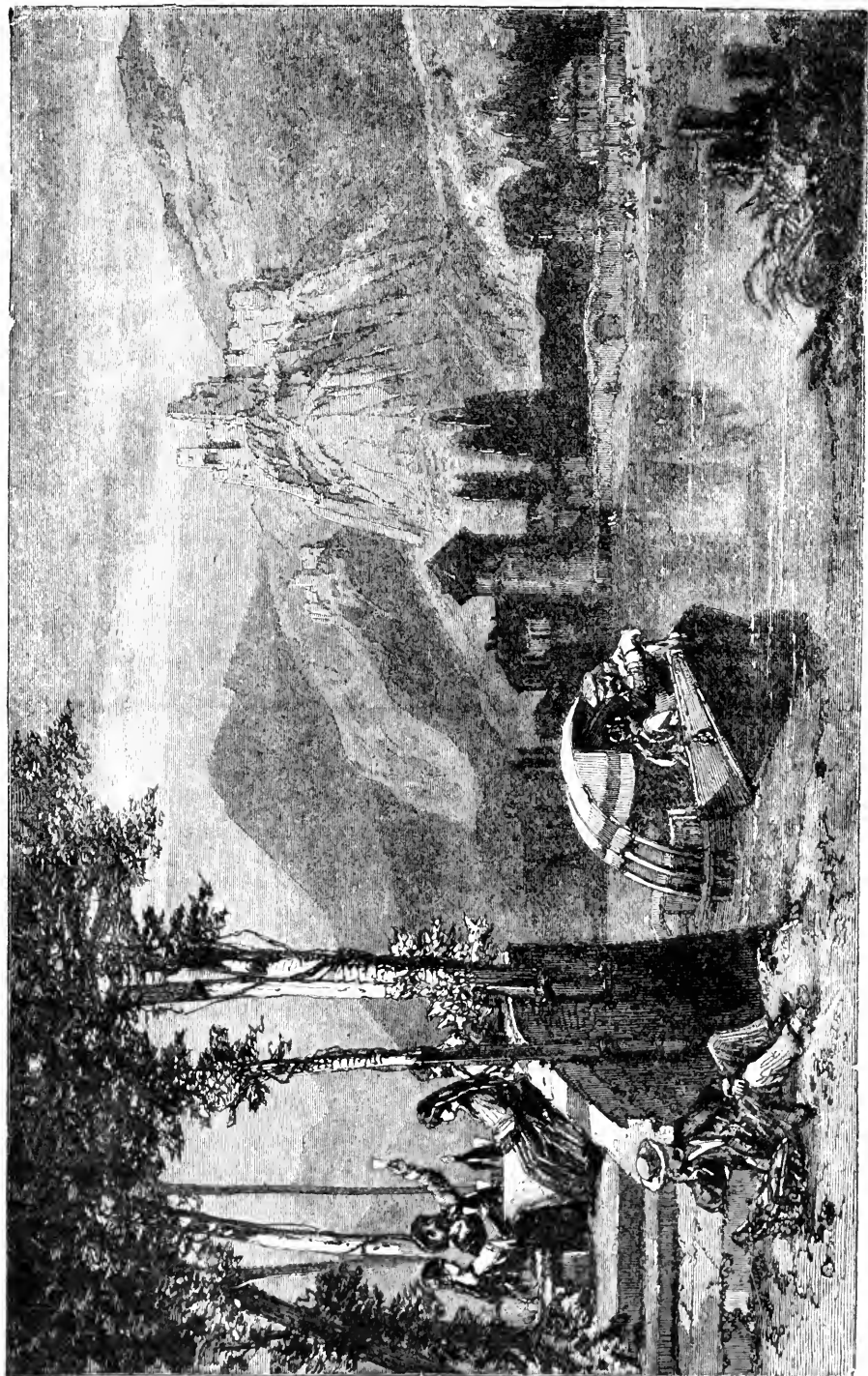
The Commandant and his aide-de-camp were tall, thin personages, but with intelligent faces. The Commandant endeavoured to look grave, as became a

man of his importance. The other, less burdened by a sense of his honours, gave the rein to his fancy, and he and I soon became good friends. Both of them watched us with close attention, copying our manners and gestures, apparently in the belief that, if they followed our example, they would quite surpass in polite ceremonial all their acquaintances. They wore full-dress suits: black coats—rather old-fashioned, it is true—antediluvian waist-coats, and trousers of a wonderful greyish black, which betrayed their ancient origin. They managed their pocket-handkerchiefs with the skill of a dandy, at first flourishing them with a seductive grace, and then, quite at a loss to know what to do with them, sitting down upon them, being ignorant of the use of a pocket.

Madame la Commandante, who sat next to me, was a large woman, of the colour of a withered apple, and looking awkward in her ill-fitting dress. Her manners did not encourage me much, for she responded to my advances by a stupid look, which meant nothing, and contented herself with emptying her plate methodically, which I refilled at each course. Ferdinand explained that I had offended against Malagasy etiquette in helping madame first; and that it was my other neighbour to whom I should have first addressed myself, Malagasy politeness requiring the men to be helped first. Women are thought nothing of, being regarded as inferior creatures. Whereupon I devoted myself to the 'twelfth honour,' who sat on the other side, and who, on his part, spared no pains to make himself agreeable. He copied me with such persistence that his fork kept time with mine; when I ate, he ate, when I drank, he drank, and when I stopped, he stopped. Certainly, this man was endowed with a rare talent of imitation, and had it not been for the gravity of the occasion, I should have tried putting my fork to my ear, to see if he would do the same. My neighbour drank his wine undiluted, but he thought wine insipid, and preferred spirits with a very strong flavour,

which he took in glassfuls, so that in a few minutes he became on the most touchingly familiar terms with me. On the slightest occasion, he would slap me on the stomach, which attention, I was assured, was highly flattering; he swore that he was my friend, as I well deserved to be; and finally plunged his hands into my plate, in the idea that two such friends ought to have everything in common. At this new mark of favour I coloured at first, and then took a fit of laughing, which delighted him. I then left him the remainder of the plateful he had touched, giving him to understand that so it would be done in the best society of Europe.

The gentlemen continued their pleasantries (which for some time had become rather tiresome) till a late hour. Although they bore the wine very well, they began to be rather incoherent in their conversation. We therefore rose, but as no Malagasy dinner ever terminates without toasts, we were obliged to re-seat ourselves. Their custom is to drink the health of each guest, beginning with the humblest in rank and finishing off with the Queen. Enthusiastic individuals drink also to the relatives of their hosts, their children, and grandchildren, etc. Fancy our position! We commenced. When it came to the Queen, a manœuvre was executed under the verandah by the garrison, the voice of the corporal sounding like thunder. Our guests staggered to their feet, and, turning their faces in the direction of Antananarivo, the capital, drained their goblets to the incomparable glory of Rasuaherina pangakany Madagascar. When it came to our turn to propose the health of the Emperor, the anxiety of the Hovas was great. They gave the signal for the manœuvre to be repeated outside; but, as they did not know where Paris lay, they hesitated as to the point of the horizon. They tried turning to the north; but the difficulty increased when they came to pronounce the name of Napoleon III., and it was only after numerous false starts that they succeeded in drinking this last toast."



ON THE RUINE.

ON THE RHINE.



WITHOUT doubt the beauties of the Rhine begin at Bonn. The views of the Drachenfel, up the river are very pretty ; but I suppose almost every one is disappointed at the small size of the famous Seven Mountains. However, they are very pretty, especially from the hotel gardens which skirt the Rhine. Many families stay here for some time.

Bonn is a pleasant place, having on its bank-side summer-houses, terraces by the cool swift river, and long avenues of shade-giving horse-chestnut—many a charm for those who seek some dog-day rest. It is a very old town and modern university ; for “Bonna” is mentioned by Tacitus, and long marked the spot of the only bridge across the Rhine, except that at Mayence, while the university was founded so lately as 1818. The town, as might be supposed, has much increased since then ; indeed, so many are the fine fresh houses, that it looks like a newly-built place, instead of being one of the first Roman fortresses on the Rhine, and famous in the days of Constantine the Great.

Bonn was the university of Prince Albert ; and I dare say that the small expenditure of many of these German students helped to teach him some of that carefulness and economy which marked his character in later life. Even those who spend most would make a poor display of prodigality among the fast undergraduates of Oxford and Cambridge. Tobacco is cheap in Germany ; and however capacious and thirsty a man may be, he cannot run up very large bills for beer.

I believe, moreover, that Bonn has a character for studiousness, and that, of its eight hundred students, a very respectable number devote themselves to the proper business of the place.

There is a sight, not a very pleasant one, which most who visit Bonn see before they leave, and that is a group of monk corpses, dead years and years ago, but still at their church, unburied, and clothed in the dress of their order. About a mile or so from Bonn, set upon a hill, the Kreuzberg, some four hundred feet high, with “stations” for pilgrims marking the path up towards it, there stands a little church. There is nothing particular to be seen in the building till you get down to the vaults ; but in these you find the very monks who once worshipped above-stairs, shrunk up like stock-fish, and reposing in their cowls. The air is so dry here that a dead body does not decay, but shrivels. The ghastliest instance of this open-air burial I ever saw, though, is in a monastery at Rome. There the monks are not all dead, only the head of the procession, as it were ; the youngest, the survivors, chanting in the church above, while those whose voices lately sounded among them are sitting silent, clothed, and bolt upright in the catacombs below, stark dead. In this case, however, the corpses of the deceased are not set up at once in the catacombs, but buried for a year or more, generally about two years ; then they are dug up, partially cleaned, dressed, with cowl upon the head, cord round the old shrunk waist, and crucifix in hand, and then seated, as if in a thoughtful attitude, in a corner. When the corners are all filled, and fresh candidates come from beneath the mould, the old sitters are stripped and pulled in pieces, their bones being carefully sorted and classed. Skulls are put in rows and heaps ; legs and arms make some of the heavier decorations of the crypt, while the finger-bones and other small portions are strung together in festoons. It was a hideous sight ; but the monk who conducted us over the place chatted away, and cracked his jokes at the dreary look of those of his former comrades whom he once knew fat and shining in the dinner-hall,

That was years and years ago. Very likely our talkative guide is now seated stiff, shrunk and silent in one of those nooks he pointed out, or has gone through the dismemberment which he had described in such a cheery, comfortable voice.

The congregation of dead monks is permanent at Bonn. There are no more there to die; the last has been dressed in his cloak, and set in his place below the white church above the village of Poppelsdorf. Whether on account of this collection of modern mummies or not, the church is popular, and visited as the goal of a short pilgrimage by numbers of the poor peasants around. But the attraction of the place is increased by a sham "*scala sancta*," or sacred stairs, affecting to be those up which our Saviour ascended when taken to the hall of the *Prætorium* at Jerusalem. It is notorious that Rome claims superstitiously

to have the true "holy steps." Whether the simple people who come to the Poppelsdorf know this or not, there can be no doubt that the priest does, and that he is perfectly well assured that those relics which make his church famous among the ignorant and foolish are not what they profess to be. But people are still found to shuffle up them on their knees, in hope of spiritual peace.

Ah me! let us leave the stark, staring monks below in their crypt, and the simple ill-taught peasants in the church, full of blind faith in their religious gymnastics. Let us ascend the tower for a better view than either of these—for a sight of God's sweet world, where the endless funeral procession of nature soon moves the dead out of sight, and things seem what they are in the clear bright light of day.

The panorama from the top of the church is very beautiful.

THE CITY OF BERLIN.

AMONG the streets, the principal are the Friedrichstrasse and the magnificent street called the Unter den Linden, planted with four rows of trees, and lined with superb edifices. This fine street is terminated on the west by the magnificent Brandenburg Gate, erected in 1790, of colossal size, designed as an imitation of the Propylæum at Athens, and surmounted by a car of victory drawn by four horses, which was carried away by the French in 1807, and brought back in triumph in 1814.

Among the places or squares may be mentioned the Wilhelmsplatz, bordered with lime trees, and ornamented with statues of the celebrated warriors of Prussia; the Lustgarten, planted with poplars and chestnut trees, and adorned by a statue of Prince Leopold of Anhalt Dessau; the square of the Opera, with the statues of Blucher and other military heroes.

The city is embellished with many splendid buildings. Among the principal of

these is the royal palace or schloss, imposing by its magnitude. The museum, begun in 1823 and finished in 1830, is the finest edifice in the city. Opposite the entrance is a gigantic basin of polished granite, twenty-two feet in diameter, which was formed out of a vast isolated boulder which lay at Fürstenwald, about thirty miles from Berlin, and was conveyed in a flat-bottomed boat along the Spree to the city. The royal library is a heavy-looking building. The arsenal, erected in 1695, forms a square, and previously to the revolution of 1848 contained a large store of warlike ammunition. The churches are numerous, but by no means handsome. Among the other buildings are the Bourse, the opera-house, the charity and maternity hospitals, the invalid hotel, the custom house, the mint, the post office, the barracks, etc. The Thiergarten promenade is renowned throughout Germany. Berlin contains no remains of the mediæval period, but is entirely indebted to modern art for its present magnificence.

THE REPUBLIC OF LIBERIA.



At various times since their settlement the colonists of this novel republic have had to fight for their lives, in which contests many valuable men have been sacrificed. In all, however, they have come off victorious; and in most cases the attacks have resulted in their opponents, the native chiefs, begging to be incorporated with the republic. We will relate two or three of the most striking instances.

Two traders had come to the coast of Bassa, erected a factory, offered great bargains to the natives, and made every preparation for carrying on the slave trade on an extensive scale.

"It must not, and shall not be," exclaimed Governor Buchanan. "Fire, famine, blood, and chains, are the necessary elements of the slave trade! What multiplied miseries is this traffic inflicting on this unhappy country! It must be stopped." He immediately sent an order to the traders to leave the coast instantly, or run the risk of having their property destroyed and their factories ruined. The order was treated with contempt.

"Leave! no; tell Governor Buchanan we shall stay as long as we please, and trade in just what suits us best," cried the intruding factor; and forthwith he set about adding to his stores, enlarging his barracoons, and making every preparation for a permanent settlement.

The governor again sent to him threatening hostility if his orders were not obeyed. The message was treated as before, and the governor resolved that no time should be lost in executing his threats. The militia of Monrovia were at once assembled, and he presented the facts before them, asking for forty volunteers to come forward and

support their Government. The number at once stepped out and offered themselves, and he then sent to New Georgia for thirty more, and obtained them. These were placed under the command of Colonel Elijah Johnson, the oldest and bravest of the colonial military, and marched for Little Bassa. Three schooners, filled with ammunition, put to sea, to aid and to operate with the land forces at the scene of action. The whole amounted to one hundred men, under the direction of the Marshal of Liberia, Mr. Lewis, all animated with the same heroic determination to expel the slavers or die in the attempt.

Three days passed away, and the inhabitants of Monrovia were anxiously waiting the result, when the governor was thrown into the greatest alarm by seeing the schooners return, they having been unable to double the cape against a strong east wind and a heavy sea. "What has become of the land force, deprived of the assistance of the fleet?" he exclaimed, filled with fearful forebodings of their fate. It was a moment of intense anxiety and gloom. Just then an English man-of-war arrived in the harbour, with a fine snug, fast-sailing slaver, which had been recently captured, and which, on learning the critical state of things, the commander placed at the disposal of the governor. In an incredibly short time her captain and crew were landed, and the governor was on board with men, arms, ammunition, and provisions. By daylight the following morning, little more than thirty-six hours after her departure, the slave schooner *Euphrates* anchored off Little Bassa. At that early hour nothing could be distinctly seen on shore, and a canoe was instantly despatched to learn the situation of affairs around the barracoons. As the day opened, a scene of fearful interest burst upon the eyes and ears of the governor and his party. About

a hundred and fifty yards from the beach, on a little clearing amidst the forest, arose the barracoons and a few native huts, from the walls of which now gleamed, in hot and quick succession, the fire and steel of musketry. The woods muttered an angry answer; the roaring and blazing of guns burst forth upon the barracoons on every side. Who were the besieged? Were they friends or foes behind those palisades? None could tell. Breathless and anxious stood the men on deck, watching the varying struggle, and the return of the canoe was waited for with the utmost solicitude.

"Dem live for fight dere now; 'Merica man have barracoons; country man in woods all round! Fash man, stand back; spose you go on shore, all catch plenty balls," shouted the Krooman as soon as he was within hailing distance. "'Merica man in the barracoons."

The little force of Liberians then was surrounded and hotly besieged by a savage and angry enemy of tenfold their number, thirsting for their blood. Their ammunition must have well nigh exhausted.

A new difficulty and danger sprung up. The governor was on board a well-known slaver. The settlers, mistaking them for Spaniards, come up to reinforce the enemy, might fire upon them, or, seeing no way of safety but in retreat, abandon the barracoons and attempt to cut their way into the forest. What was to be done? "We must communicate with the barracoons; we must convey information to our friends with all possible despatch; who will go on this perilous enterprise?" asked the governor, looking round on his men.

"I will go, sir," cried a young American sailor, stepping forth from the crew, with fire in his eye and unflinching courage stamped on every feature of his face.

"It may cost you your life," said the governor, fixing his keen eye upon the man.

"Never mind, I will go," was the bold reply.

With a hastily penned note to Colonel Johnson hidden in his bosom he accord-

ingly set off on his dangerous errand. The brave Liberians in the barracoons were all this time watching anxiously the schooner; when her masts and spars became first visible in the morning light they hailed her as the promised aid. "Aid! aid!" they shouted one to another joyfully; "thank God, aid is near." How, then, must their hopes have been dashed on discovering her to be the slaver *Euphrates*!

As the second canoe pushed from the vessel's side, it was seen by Colonel Johnson, who exclaimed: "There goes the slaver to concert measures with the natives for a combined attack. If he reaches them we are lost. He must be cut off." And, at the head of a handful of men, Johnson rushed out to attack him as the surf threw the canoe upon the beach. The brave sailor found himself thus beset with foes on every side. No sooner had he landed than a party of natives, concealed in the bushes, seized the poor fellow, and, discovering him to be "'Merica man," were about to despatch him with their knives, when Johnson's party, who saw in the movement something auspicious to themselves, made a furious onset on the savage who held his knife at the sailor's throat, and instantly shot him down.

Meanwhile the governor and his men were already under way. A party of savages stood ready to cut them off as they landed. Before this could be done, however, a sudden and heavy fire from the boats reached their ranks, and scattered them into the forest. With a joyful welcome was the governor received as he crossed the threshold of the barracoons. For an instant a rattling shower of balls was unheeded, while the men threw up their caps, shouting, "Hurra! hurra! for Governor Buchanan." Prompt measures were immediately resorted to; some houses outside the palisades, which had afforded shelter to the savages, were quickly destroyed. A sally was made into the nearest thickets, where a large body of the natives had entrenched themselves. They were speedily routed, and a party of axe-

men soon levelled the cover to the ground. The property saved by the marshal began to be shipped, and the whole day was passed in industriously working and as manfully fighting. It was a day of vigilant, severe, unresting toil.

The next day, it being reported that Laing had determined to reinforce himself with other native princes, and continue the combat, the schooner was despatched to Monrovia for more volunteers, two field-pieces, 14,000 ball-cartridges, and other articles necessary to their position. On our return, the governor sent a message to the native kings, demanding the instant surrender of the slaves in their possession, and desiring of them to make a treaty of peace within twenty-four hours. The messenger came back in the evening, bringing word that the king of the district would appear the next morning on the beach.

The next day, accordingly, a white flag was borne towards the barracoons. "Bob Gray," the king, was said to be on the beach, fearful of approaching nearer. Governor Buchanan, therefore, with an escort of seventy-three men, marched out to meet him. It was some time before Bob Gray consented to issue from the bushes, and when he did he shook from fear, though surrounded by a body-guard of three hundred warriors. Before saying a word, he gave up the slaves in his possession, and piteously bewailed his folly in making war on the "Mericans." The terms of peace were readily agreed to, written, and signed on a drumhead, the principal articles of which were, that he (Bob Gray) would never deal in slaves again, or enter, in any way, into the slave trade.

The encampment was broken up next morning, and both land and sea forces returned to Monrovia, with the loss of only one Krooman. Six or eight Liberians were wounded, amongst whom was Colonel Johnson. The loss of the enemy was more considerable. The spot is now known as "the Factory."

But the most fearful encounter with the natives was in the attack made upon the

settlement at Hedington, which is described as follows:—"On the 16th of March, a fearful onset on the unoffending town of Hedington was made, when between three and four hundred warriors, consisting of Candoos, Veyes, and Mamboos, headed by four chiefs (of whom Goterah was principal) suddenly appeared before it. So sure were they of victory, that Goterah had brought a pot for the purpose of cooking Mr. Brown, the missionary, for his breakfast. The Mission-house was on one side of the settlement, behind a large field of cassadas. At this time there were two carpenters from Caldwell living at the Mission-house—Zion Harris and Demery—who had come for the purpose of building a church and school-house for the mission. At daylight a report of guns was heard, and immediately a voice shouting, 'War, war, war is come!' whilst a horde of savages came rushing through the cassada field, uttering the most horrid yells. Harris and Demery, seizing their muskets and cartridges, rushed out, and took their stand behind the picket-fence which surrounded the house, as the enemy, like furious tigers, pressed madly forward. Their course was suddenly checked by a deadly discharge from the muskets of the carpenters, which stretched several of the leading warriors on the ground. Before recovering from their panic, Brown opened a heavy discharge upon them from the upper windows, and a conflict ensued, in the course of which Goterah fell.

The death of Goterah gave great joy to the natives far and near. Some came from a great distance to see the man who had slain the tyrant, saying, 'Merica man's God is God for true.' Another chief, Gotumber, was determined to revenge the death of Goterah, but failed to effect his purpose, and this proved to be the last attack of the natives.

Six or seven kings, who had stood ready to join the strongest party, now hastened to Monrovia with presents and protestations of friendship; whilst from the interior tribes messengers were sent to beg an alliance with Liberia. One article in

every treaty was always insisted on by the governor—'Never, in any way, to be engaged in the slave trade.'

Every man seemed glad to be freed from the attacks of the dreadful Gotumber, who, driven from his town, and shunned by the neighbouring kings, was forced to skulk in the woods without a hut for shelter, and nothing but wild yams for food. The feeling began extensively to prevail that in Liberia, and there alone, was there security from the liability of being seized and sold into slavery. This idea cannot be more touchingly expressed than in the reply of a poor fellow from the river Congo. On being asked whether he did not wish to return to his own country, 'No, no,' said he; 'if I go back to my country they make me slave. I am here free; no one dare trouble me. I got my wife, my land, my children; learn book—all free. I am here a *white* man; me no go back.'

In the year 1839, it was found desirable that a constitution should be drawn up, defining the rights, duties, privileges, etc., of the colonists. Accordingly, one was sent out with the new governor, Thomas Buchanan. At this period the colony contained nine towns, owned 500,000 acres of rich land, had four printing presses, two newspapers—the *Liberian Herald* and the *African Liberator*, twenty-one churches, thirty ministers, ten day schools, and many Sabbath schools. It still maintained its connection with the colonization societies; and whilst the colony was in its infancy and required constant pecuniary aid this was essential to its welfare. But in 1846, after nearly thirty years of existence, the increasing numbers, wealth, and influence of the Liberian colony suggested to them the necessity of self-government. The anomalous and inconsequential position they had hitherto held as a dependency on a simple society, possessing no recognised political character, and claimed by no state, was

becoming embarrassing to them. With unequalled facilities or commercial operations, it was their wish to form alliances and commercial treaties with England and France, but the governments of those countries could not, in the position in which the colony stood, recognise them or be of any service to them in a political relationship.

They therefore determined to declare their independence, and form themselves into a republic, after the model of that of the United States. With the full consent of the Colonization Society, a declaration of independence was drawn up by Simon Greenleaf, LL.D., Professor of Law in Harvard College, Cambridge, Massachusetts. The form of government consisted of a president, elected by the people, and sustaining, with the executive power, the navy, with power to call out the militia during the recess for the defence of the republic. The legislative power is vested in a senate and a house of representatives, styled collectively the "Legislature of Liberia." Each of these has a negative, or vote, on the acts of the other.

The act of declaration of independence was signed on the 24th of August, 1847, and the first president was Mr. Roberts, a gentleman who had been for some years in the colony. Immediately after, they drew up resolutions, declaring their withdrawal from all political relations with the American colonization societies. In the flag they adopted was inscribed the national motto, "Liberty brought us here." With respect to the act of independence, it ought to be stated that it is drawn up after the model of that of the United States, with this important exception, that it not only *declares* that "all men are born free and equal," etc., but in the most emphatic and unequivocal terms repudiates and denounces the slave trade and slavery, and proposes for ever to banish both from the Liberian territory.



THE CEDARS OF LEBANON.

“**J**OYOUS view burst suddenly upon us,” says Canon Tristram, “and the whole sea-coast, from Beirût almost to Ruad, the ancient Arvad, lay spread ten thousand feet beneath us. In the nearer foreground below, was a sort of hollow or basin, the upper drainage of the great valley of the Kadisha, a rough, rocky plain, heaped with mounds, which are doubtless the ‘moraines,’ or deposits of ancient ice ; and its enclosing sides scarped

by the traces of the primæval glaciers which formed these moraines.

In the midst of this area, closed in by snow-streaked mountains on the east, north, and south, but open towards the west, and looking on the broad expanse of sea more than six thousand feet beneath, on a group of mounds, at the very ‘edge’ of the height of Lebanon, stood a dark green clump of trees—the famous cedar grove. Dean Stanley, and most other visitors, remark that the first view of the grove is a disappointment. We certainly did not feel it so, perhaps because our view was from above instead of, as in their case, from below ;

perhaps because so many have remarked upon the insignificance of the group, that we expected nothing. On the contrary, we were struck by the very marked feature which the grove, inconsiderable indeed in itself, formed in the vast and bare landscape. Where there are few features, these, even if small, must, when in strong contrast with all around, arrest attention.

There are several noticeable features which struck us at once. First, the position of cedars at the 'edge of Lebanon,' the only vegetation visible as we looked down into the wide amphitheatre, but yet themselves linked with man and with civilization by a narrow strip of cultivated valley, which commences at the extremity of the grove, and gradually widens and expands, till, in the course of a few miles, it becomes the fruitful vale of the Kisha. Then we have heard so much of there being only ten or twelve old trees, and a few young ones around, that we were not prepared for a group of more than three hundred and fifty trees, all fine timber, while from the spot where we stood old and young were undistinguishable.

The distance looked short from the top of the pass, but we wound for a long two hours down the steep rocky declivity before we reached the group, lying a little to the right of the road. The great charm of solitude is no longer here, for a little square chapel and several rude huts have been erected under the central clump, and the inhabitants find touting and pestering visitors a profitable variety in their ordinary occupation of goat-herding.

But before we came upon these, more agreeable denizens arrested our attention. The grove was vocal with life. Innumerable cicadæ hissed and grilled around, and many a familiar, and some strange notes of birds welcomed us from the branches. The common chaffinch, which we had never found in Palestine since the winter, gave forth his blithe chirrup from every tree; numbers of the English coletit were almost out of sight aloft among the boughs, being an addition to the birds of Syria hitherto

unnoticed; a beautiful little species of finch, akin to the canary, and which has not yet been described, was in little bands everywhere, and a redstart, never before brought to England, sent forth a nuthatch-like note as he stealthily glided from trunk to trunk. Many hooded crows, ravens, kestrels, hobby-hawks, and wood owls, were secreted in the topmost boughs, almost out of shot.

The trees are not too crowded, and many of the younger ones have a circumference of eighteen feet; nor are they entirely confined to the grove, as there are several stragglers of considerable size to the north and west. In such a spot we could well comprehend the feeling of superstition which seduced the chosen people to erect altars and high places 'on every high hill, and under every green tree.' The breeze, as it soughed through the dark boughs, seemed to breathe sounds of solemnity and awe, and to proclaim 'the trees of the Lord,' the 'cedars of Lebanon which He hath planted.'

Sir Joseph Hooker also gives a description of this famous forest:—

"So far as is at present generally known, the cedars are confined on Lebanon to one spot, the head of the Kadîsha valley, which, at six thousand feet elevation, terminates in broad, shallow, flat-floored basins, and is two or three miles across, and as much long; it is here in a straight line fifteen miles from the sea, and about three or four from the summit of Lebanon, which is to the northward of it. These open basins have shelving sides, which rise two thousand to four thousand feet above their bases; they exactly resemble what are called corrys in many Highland mountains. The floor of that in which the cedars grow presents almost a dead level to the eye, crossed abruptly and transversely by a confused range of ancient moraines which have been deposited by glaciers, that, under very different conditions of climate, once filled the basin above them, and communicated with the perpetual snow with which the whole summit of Lebanon was at that time deeply covered. The moraines are perhaps eighty to one hundred feet high; their boundaries are perfectly

defined, and they divide the floor of the basin into an upper and lower flat area. The rills from the surrounding heights collect on the upper flat, and form one stream, which winds amongst the moraines on its way to the lower flat, whence it is precipitated into the gorge of the Kadîsha. The cedars grow on that portion of the moraine which immediately borders this stream, and appear as a black speck in the great area of the corry and its moraines, which contain no other arboreous vegetation, nor any shrubs but a few small berberry and rose bushes that form no feature in the landscape.

The number of trees is about four hundred, and they are disposed in nine groups, corresponding with as many hummocks of the range of moraines: they are of various sizes, from about eighteen inches to upwards of forty feet in girth; but the most remarkable and significant fact connected with their size, and consequently with the age of the grove, is that there is no tree of less than eighteen inches girth, and that we found no young trees, bushes, or even seedlings of a second year's growth. We had no means of estimating accurately the ages of the youngest or oldest tree. It may be remarked, however, that the wood of the branch of the old tree, cut at the time, is eight inches in diameter (exclusive of bark), presents an extremely firm, compact, and close-grained texture, and has no less than one hundred and forty rings, which are so close in some parts that they cannot be counted without a lens. This specimen further, is both harder and browner than any English-grown cedar or native deodar, and is as odoriferous as the latter. These, however, are the characters of an old lower branch of a very old tree, and are no guide to the general character of the wood on the Lebanon, and still less to that of English-grown specimens, which are always very inferior in colour, odour, grain, and texture. Calculating only from the rings in this branch, the youngest trees in Lebanon would average one hundred years old, the oldest two thousand five hundred—both estimates no doubt widely far from the mark. Calculating

from trunks of English rapidly grown specimens, their ages might be put down as low respectively as five and two hundred years, while from the rate of growth of the Chelsea cedars the youngest trees may be twenty-two, and the oldest six hundred to eight hundred years old."

Dr. Porter adds, "The cedars are much broken and disfigured, partly by the snows of winter, but chiefly by the vandalism of visitors. The patriarchs, in fact, are all hacked and hewn, tablets cut on their sides, with names inscribed on them, names known in history and literature; joined with others which nobody has ever heard of, or ever will hear of elsewhere. Noble lords figure beside the autographs of their dragomen; and other associations occur to excite the sneers and indignation of posterity. I shall feel that I have not written altogether in vain if my strong protest against such barbarity tend to save these last trees of a sacred forest from the knives of future pilgrims. The cones are fair game as relics, and any branch that the winter storms may have broken off may be bargained for with the monk; but deliberately to use a knife is an act that would disgrace a Bedawy.

In past days one of the greatest charms of this little forest was its solitude, but that is gone. An unsightly chapel has been erected in the centre of the grove, and many a branch has been ruthlessly cut down from its roof. Nightly, during the season, the monk guardian, and a goodly train of idle boys and men who collect to see the strangers, kindle their fire of cedar-wood to boil their coffee, light their pipes, and temper the chill mountain blasts. Even this is not all. In the beginning of August each year occurs the 'Feast of the Cedars,' when natives, lay and cleric, assemble in hundreds to spend a night in prayer and revelry around these venerable trees. Their branches are lopped off for fire-wood, and kindled beside the massive trunks, and upon the exposed roots of the oldest trees. It is to be feared that such a combination of accidents will ere long annihilate the famed cedar grove of Lebanon."



AMONGST THE BASQUES.

WE went over San Sebastian on Wednesday morning (says Miss Whately), and saw what there is to be seen there: a beautiful view of sea and rounded cliffs, not unlike Howth Head, and a fine sweep of sandy beach; a cheerful market-place, where I stood and sketched two or three old women with long streamers and orange handkerchiefs; and a church, where a confirmation was going on, which gave us an opportunity of seeing a number of the people of the city—ladies in mantillas. Many of them came from real Spain: slight, graceful figures; splendid, glossy black hair, really like a raven's wing, and exquisitely arranged, with the light net fall of the mantilla down over it, and hanging over the face; bright eyes, and a general effective look, making them seem prettier than, when studied, they really were, though many were in fact exceedingly handsome. The lower order, with long plaits hanging down their backs, were a very good-looking race, and with a most agreeable, intelligent expression. At eleven o'clock we left San Sebastian, and a pleasant drive of two or three hours brought us to a little village, where the horses baited.

Here we spent two hours, and this was the way we employed them:—We walked down to the beach, where bold rocks stood out against the broad Atlantic, whose waves came with a rolling dash upon the smooth sands, giving promise of what they would do when lashed into rage. Then we sat down to eat bread and cold chicken, and to be watched by a whole bevy of handsome, barefooted children, seemingly just out of school, some carrying babies, and altogether making a party of twelve or fourteen at least, full of curiosity to see the strangers; for I suppose English, or indeed any

travellers, are not very common. At first we felt it a little troublesome to be so surrounded; but we soon found that these Basque children were so well-behaved that they did not worry us. They asked for nothing, and only sat watching our proceedings, and, on receiving bread and bits of biscuit, divided them without roughness or scrambling. They chattered in Basque to each other; but all understood Spanish except the very little ones. Some of the girls of ten and twelve were lovely little creatures, with sweet, intelligent black eyes and lissom figures. I began a sketch of some of the party (to get all into a group would have required longer time than I had to give). A dear little black-eyed damsel, with a baby brother in the usual swaddling-clothes of this region (*i.e.*, a yellow cloth skirt and a heap of promiscuous jackets bound together with red or brown festooned ribbons), sat opposite me, and, with three or four more boys with blue and red berrets, and little girls in charming variety of striped and coloured garments, made a pleasant picture, and gave great delight. One big lad of thirteen was sent to fetch some water for us to drink, and showed much intelligence and most courteous manners.

We had rather a windy drive in the afternoon, which made the clouds hang over the mountains, so that they did not look their best; but it was a fine and varied scene, and Ezpeitia perfectly lovely. It was yet daylight when we reached that little town, famous as the birthplace of Loyola, and possessing a college, where those great mischief-mongers his followers have a headquarters.

The town of Ezpeitia is hardly more than a village, but old and very picturesque. It stands in a wide valley of rich meadows, with a rapid trout-stream running over stones and rocks in the midst of it, and a

whole circle of mountains of various heights round it, some bare, and showing thin grey limestone, others broken by cultivation, and clumps of foliage, cork-trees, oak, and beech. The hotel, *alias* fonda, *alias* *parador*—the last is the favourite term here—astonished me by its cleanliness, compared to what we had heard of Spanish inns. Some friends had told us that the inns in Biscay were dirty, the food very bad, and the people uncivil. Our short experiences were exactly contrary. The inn at Ezpeitia was very decent, as well as delightfully picturesque: the *salon* windows opened on little balconies, embowered in apricot-trees trained over them, and covered with bright green fruit; dark polished floors were here, though somewhat uneven; and there was a Rembrandt-like kitchen, where a benevolent-looking old dame, with a white kerchief on her head, presided over the cookery, which when served up, proved remarkably good.

Early next morning I was at the window, looking out at the pleasant scene, and enjoying a quiet bit of time before my companion was awake. The proper Spanish breakfast is a tiny cup of chocolate, without a saucer, a couple of small sweet cakes or a morsel of bread, a large glass of water, and a *sugarilla*, made of sugar and white of egg, to put in the water. The people were all exceedingly courteous and civil. I have never met pleasanter manners than those of Spanish Basques. Afterwards we set out for the Jesuit college and church, very beautifully situated about a mile from the town, and well worth sketching, from its graceful Saracenic style. However, I preferred making my drawing at a point some distance from the building, and letting the rest of the party go on to visit the interior. While I was drawing, a venerable-looking poor man passed by, and stepped back to glance at my picture. So of course I had a little bit of chat, as far as I could manage, and gave him a tract. At first he would not take it, and I was feeling disappointed; but it came out that he refused, thinking it was the only Spanish book I

had, and that I would want it to learn Spanish. "Toma señor," said I, earnestly; and he thanked me, and took it and went on his way.

Leaving Ezpeitia we ascended a mountain, so steep that two stout oxen were harnessed to the carriage in front of the horses. It was a mountain pass, on the Spanish side of the Pyrenees, and a very beautiful one in many ways. The foliage was exceedingly fine and luxuriant; such groves of beech in all the splendour of their early summer green, and with merino sheep feeding under them, and grey rocks jutting out amid heath, and fern, and grass, adorned with tufts of blue columbines, and a pretty pink blossom. The cottages of the Biscayan peasantry were an unceasing object of admiration, being of picturesque forms, and white or buff-coloured, with red-tiled roofs and little wooden balconies with vines trained over them, and just the happy mixture of neatness and neglect that comes best into a landscape; on the whole, far superior to the French. The farming, too, was pronounced better by those of our party competent to judge: certainly the land between the rocks and ravines seemed very fertile, and most carefully laboured, if in somewhat primitive style. The men, driving a simple plough, or working up the land with great forks, were usually attended and aided by their little boys; and women, with white sleeves and blue skirts, tucked up so as to show a red petticoat, were busy weeding. The oxen here are much finer and larger than the Bearnese: they are shod with iron, like horses. The carts are very primitive, having solid wheels, which must be very heavy, and make a great creaking: the effect is odd, used as we are to spokes in wheels.

By half-past six we reached Tolosa, our next halt; a very pretty town, but not in such scenery as Ezpeitia. A brisk river runs through it, which is turned to account for two manufactories—one of cloth from the merino wool, the other paper. This is a great thing for so small a place, and improves it much, by giving employment

Between Tolosa and Pampelona is no town,—nothing but miserable villages, where no one would sleep unless in very sore necessity.

At an early hour all were up. The morning was brilliant, and the little river sparkled as we crossed the bridge. A real mountain pass, equal to most of the Swiss passes, only without the snow peaks, was now our route. Here in winter it is cold enough for snow, but not so late as this; indeed the sun was exceedingly hot, but a breeze, which in some of the ravines became a wind, prevented it being at all oppressive.

A small village, within the borders of Navarre, and situated between two splendid passes, is the usual and only rest between Ezpeitia and Tolosa. A house where a toll had to be paid marked the boundary, and a huge chain hung before it, which we were told was put up at night just across the road. This chain marks the line between Biscay and Navarre. On the Biscay side no man can be taken by conscription for a soldier, for the Basques will not submit to this. They often enlist voluntarily, and make good soldiers; several generals of note have been Basques; but force they will not stand. The few people we saw were much less dark than the Spanish Basques, and not so well-looking. The road has so much traffic with merchandise for San Sebastian, that a posada with plenty of stabling and food is found there. It was a real Spanish posada—the ground-floor all occupied by stables full of newly-arrived mules and horses, and pigs running about on it. Through this we had to pick our steps to a staircase not of the cleanest, and came to a picturesque kitchen, where huge logs lay on the floor endways to the fire, above which swung a pot. Everything was in primitive style. In a room opposite a number of muleteers and carters were eating and talking. Up another flight of dirty stairs, we reached the grand guest-chamber, which, if not clean, was not actually filthy. The windows, as in all the common houses in Navarre, were mostly of wood: in the cottages nothing but wooden

shutters are used, with a peep-hole for cold days. They brought us some odd kind of broth with bread boiled in it, which is not bad; then a plate of *garbanzos*; and then some lamb roasted in pieces as big as one's hand, and very good, in spite of a *soupeon* of garlic. The Spanish cooking is certainly maligned, at least in the north. We got good fare everywhere; and this was a mere posada, frequented almost exclusively by natives. Excellent bread, and good wine with a rather pleasant astringency, were liberally supplied.

While the horses were putting to, I went down among the carters, and managed to catch two by themselves, to whom I gave a tract, which was accepted willingly; and, after we had started, the one who had taken it was observed reading so attentively that his oxen had actually come to a dead stop. I have not dared to give tracts in a large circle, for fear of mischief. The road now lay through another pass, celebrated as the scene of much guerilla warfare, and, I suspect, of sundry robber exploits also. Baptiste, our *cocher*, told many robber tales to raise our spirits; but the patrol is pretty watchful, and by day there is no danger. One part of this pass is called the Two Sisters (*Dos Hermanas*), being the name of two magnificent rocks of different sizes, which stand sentinels on each side of the road. Green slopes surround them, with short brushwood, and a stream flows beneath, where there is a little establishment of iron-works, which does not injure the scene. Here we got down and sat a short time to draw, though not nearly long enough, but as long as was prudent; for, as it was, we barely reached Pampelona by daylight.

We spent our Sunday in Pampelona. Early in the morning we went for a quiet walk. The view from the ramparts was splendid. I had no idea, in the haze of Saturday, what an extent of mountains was visible; the deep blue of those more distant heights, and the warmer tints of those nearer, rising from the plateau on which the eminence stands on which Pampelona is built. The river, fringed with cypress, poplar, and

elm trees, runs just below the fortifications. After a service in our rooms, we separated, as the others wished to walk, and I required a quiet time. Later in the afternoon I joined them in the "Paseo," or promenade, close to the hotel. I put on for this walk—as it was now become quite mild, yet without much sun—the new mantilla I had purchased the day before. As I went down stairs I peeped into the kitchen to ask one of the women if it was put on right, and the fat landlady and one of the others rushed to look, and to insist on rearranging it, and sent me forth with expressions of satisfaction. It is a singular thing that a mantilla is a dress which becomes almost every woman, of whatever age or complexion: nearly every one looks graceful and modest in it, which is no small advantage. Elderly women, who in a bonnet full of flowers would look hideous, appear dignified and handsome with the black lace folds round their heads.

The day we left Pampelona proved the most lovely of all our lovely days: both weather and scenery were delicious. The Spanish mountain country is truly splendid in many parts, and if not equal in some points to that of Switzerland, the inferiority is nearly made up in others, such as a finer climate and more transparent colouring. In the evening we reached a sweet little village called Mogaire. The air was quite balmy as it blew softly across from the garden of a wealthy marquis near the river, whose roses grew down to the water in rich profusion. The fonda was clean and comfortable, and the people extremely civil. The rooms, though small, were decent, and the linen clean and plentiful. The whitewashed walls did not boast a looking-glass in any of the chambers, but we dressed without its aid. I rose early, and went down to sketch a pretty little stone bridge. I went first to the kitchen for a drink of milk, and there saw the morning toilet of the two nice little girls of the house. They came down in petticoats and chemises (a jacket being added later in the day, if not too hot). The hair was knotted in tight plaits, and as rough

as a furze-bush, but a smooth of the hand was all it got. Then the elder washed the little one, Tomasita, by dipping her hands in water and rubbing her face very slightly, ditto to hands, without soap, and this was all.

We left Mogaire with regret, for it is a charming spot; but the long journey before us made it needful to get off soon after seven o'clock. I gave two more tracts, one to the landlord and another to a friend who was chatting with him at the door.

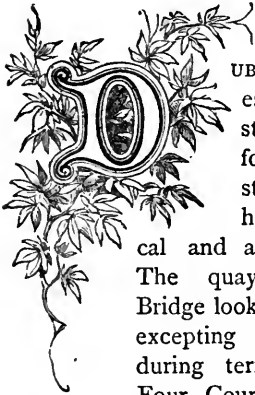
At mid-day, after a drive through very fine scenery, perhaps a little overwooded, but still very agreeable, we came to a small place where the horses had to bait. It was the last village of Navarre on this side, and a very picturesque spot, full of old gabled houses, built with wooden shutters instead of glass, for the most part trellised with vines, and altogether picture-like. We scrambled up a bank just outside the village, to get under a spreading beech-tree, and there made our breakfast, or lunch, with the delicious white Spanish bread, hot from the baker's oven in the village below, and water as cool as heart could wish from a neighbouring spring, added to a fowl brought from Mogaire. While standing in the shade to get out of the glare, I was accosted by a woman carrying a pitcher. She thought I looked warm, and showed true Spanish courtesy by instantly pouring out a glass of cider which her pitcher contained, and offering it to me. The courteous manners here are remarkable, and the politeness to women is quite different from what we find in France.

The route now lay along the beautiful little river Bidassoa, which divides France from Spain in this part. The steep cliffs are fringed with box and heather, and have charming variety and beauty. We saw a curious way of bringing boats up the river here. They are flat-bottomed, the water being very shallow, and the men punt them down, carrying oxen in them, and then take a cargo of stores for the glass-works somewhere in Spain, and make the oxen wade, drawing them along up the stream. The

effect is the oddest possible. The wind was just enough to blow up a good deal of dust, and soon after re-entering Biscay we stopped at my request at a pretty *quinta*, or farm, to ask for water. I got down to ask for it, as the best able to speak, and I saw such a sweet group: a benevolent elderly woman, with three pretty girls, all washing at a rivulet near the house. I asked for water, and they brought me cider with most courteous hospitality. These were Spanish Basques, as much handsomer than the French Basques as is generally said to be the case. I talked a little with the old dame, and, finding her daughters could

read, offered a tract to her for them, the one containing "There is a fountain," and several others. She looked rather doubtful, apparently having never heard of a hymn in her life, and said, "What is it?" I said, "Listen: I will read," and read her a verse of "How sweet the name." "Is that good?" "Si, si, buena," she replied, and took my hand, which she warmly shook, looking into my face with a pleased yet wistful expression in her fine eyes. I never saw a sweeter countenance. May the "nombre dulce" become dear to her through His own goodness and grace, making light to shine in a dark place!

DUBLIN.



DUBLIN is a most interesting city. The stranger may ramble for days through its streets without exhausting their historical and antiquarian interest. The quays above Carlisle Bridge look comparatively dull excepting King's Inn Quay during term-time, when the Four Courts building (represented in our picture) is the centre of busy resort.

On the south side of the Liffey some of the quays, with their shops and bookstalls, remind one of the quays of the Seine. The tramways and the traffic to the King's Bridge Station give a lively look to the long thoroughfare. Passing up Parliament Street southward from the river to the Castle and thence eastward towards Christ Church, we get into a region abounding in historical recollections, but presenting a sad scene of squalid poverty on getting out of the main streets. Between the two cathedrals are some of the poorest localities, which few tourists care to see, except skirting them *en route* to St. Patrick's Cathedral. Going there in a car one day, the driver

said, "You've been through streets that the Queen did not see;" and it is well she did not, or her general impression of Dublin being a fine city would have been somewhat modified. In the district known as "The Liberties," from special legal and municipal privileges once enjoyed, the numerous large buildings attest a former flourishing condition, but the population is now a dense one of the lowest operatives, reminding one of Spitalfields and similar regions in the east of London.

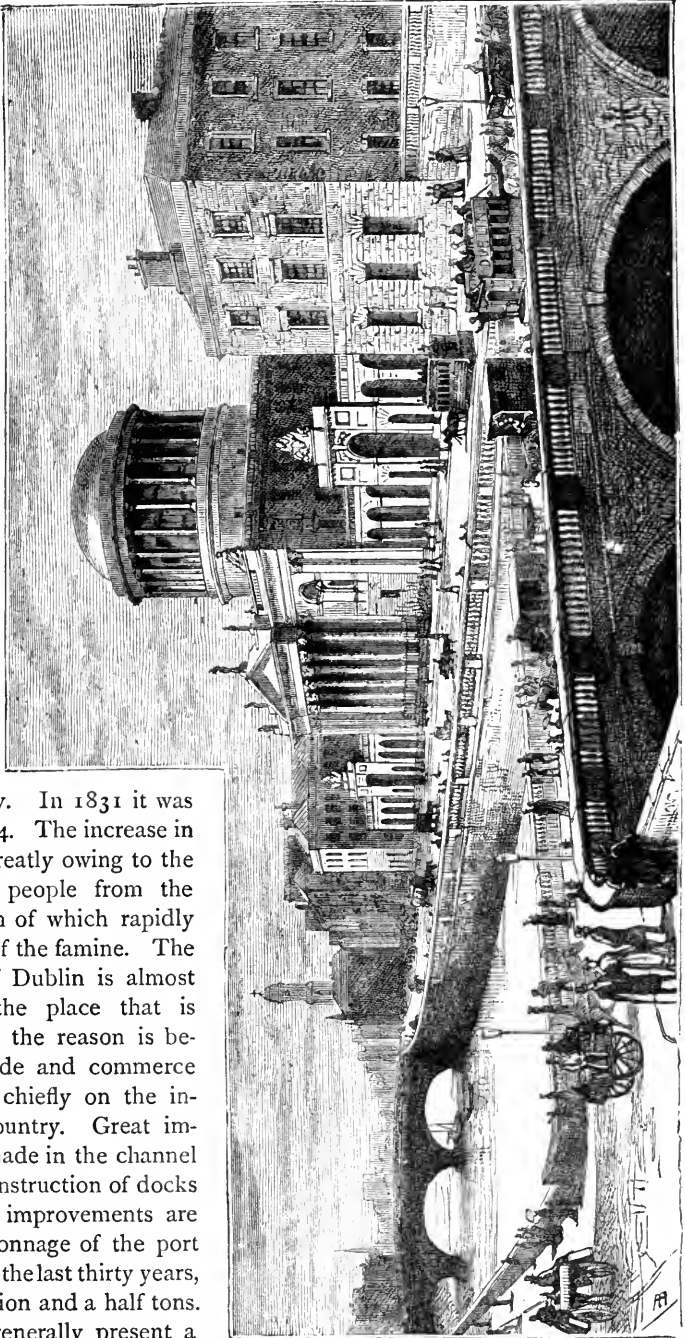
The Phoenix Park, covering 1,700 acres in all, is a magnificent demesne; the part not occupied by the grounds of the Vice-regal Lodge, by Zoological Gardens, by barracks, and by various public enclosures, comprises above 1,300 acres. Besides the open park, the "People's Garden" is free to the public, and is much frequented by the middle classes; but for the crowded poor of Dublin the Phoenix Park is of little use. Except on rare occasions the masses of people do not find their way there. There is a great lack of open spaces, not to speak of playgrounds or spaces for recreation, in the poor parts of the city. There is no city of the size, in fact, so deficient in open spaces.

The population at last census was 246,326: in 1861 it was 254,808; and in

1851 the highest number attained, 261,700. There have been singular variations in the reports of the census at various times, either from faults in the mode of enumeration or difficulty in obtaining truth, as in all Irish matters, or from a change in the municipal boundaries. From the middle of last century, when the number was about 150,000, at the time of the Union, the increase was but slow, but tolerably uniform. In 1800, the population was about 185,000, but in 1804 it had fallen to 167,900. In 1821 the first of the regular decennial enumerations, the number had again risen to the same as at the opening of the century. In 1831 it was

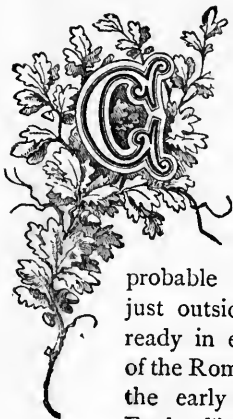
203,650; in 1841, 235,864. The increase in the next ten years was greatly owing to the influx of the starving people from the country, the depopulation of which rapidly increased from the time of the famine. The commerce of the Port of Dublin is almost the only thing about the place that is steadily progressive, and the reason is because the increase of trade and commerce depends not wholly or chiefly on the internal condition of a country. Great improvements have been made in the channel of the river and in the construction of docks and harbours, and more improvements are urgently needed. The tonnage of the port has more than doubled in the last thirty years, and is now above a million and a half tons. The North Wall Quays generally present a scene of busy life, from the large increase of steam traffic, the London and North

Western Railway boats alone forming an important proportion in the trade of the port.



But you feel that the place ought to be more stirring and prosperous than it is.

CORUÑA AND ITS ASSOCIATIONS.



CORUÑA is interesting from its historical associations. It claims to have been a Phœnician and Carthaginian settlement, and it seems probable that the lighthouse just outside the town was already in existence at the time of the Roman occupation. "In the early maritime history of England" (says Dr. Manning in his "Spanish Pictures") "Coruña holds an important place as the Groyne—a corruption of the French name *La Corogne*. Here John of Gaunt landed to claim the crown of Spain (1386), and hence Philip II. sailed to marry our Queen Mary, hoping thus to unite the crowns of Spain and England. When the Invincible Armada was seriously damaged by storms off Cape Finisterre it put into the Groyne to refit. The English government, deceived by the assurances of the Spanish Court, had given way to a false security, and believed that no invasion would be attempted, at least for that year. The nation was undisciplined and unprepared to meet so terrible a foe. But for the inevitable delay in the port of Coruña the result might have been far different. But he must be blind indeed who does not see the hand of God in the whole history of this memorable assault upon our religion and liberties.

Six days after sailing from Coruña, on Friday the 29th of July, 1588, the fleet sighted land off the Lizard, and were soon detected by those who were looking out.

That day and night ten thousand beacon-fires were lighted up throughout the length and breadth of the land. All along the southern shores, from Land's End to Margate, from the watchers of the Undercliff of the Isle of Wight to the dwellers in the northern border land, the warning flames flared forth, telling Englishmen that at last the hour was come when they must meet the enemy.

At this great hour of agony and peril the mercy of God graciously supplied all that was lacking. The courage of the Queen and people was high, the hour of danger drew them closer in heart together, the most magnificent efforts were made for the defence of our shores. Better still than all, the voice of prayer and supplication was heard throughout the land, prayer and supplication that was fully and beyond measure answered. In looking back upon this period of our national annals, it is delightful to see how firm and high was the trust and faith of good men in the power of God to aid, help and deliver them. The Queen called upon the lieutenants of counties to be active in their raising of horse and foot, 'considering those great preparations and arrogant threatenings, now burst out in actions upon the seas, tending to a conquest wherein every man's particular estate is in the highest degree to be touched, in respect of country, liberty, wife, children, lands, life, and that which specially is to be regarded, for the possession of the true and sincere religion of Christ.' There was a great gathering of soldiers at the camp at Tilbury, and the Queen herself day by day was to be seen amid her soldiers. At certain times solemn supplications were heard; 'divers psalms,' says an eye-witness, 'put into form of prayers in praise of Almighty God, no ways to be misliked, which she greatly commended, and with very earnest speech thanked God for them.'

'It was about the lovely close of a warm summer's day

[Plymouth bay;

There came a gallant merchant ship full sail to The crew had seen Castile's black fleet, beyond

Aurigny's isle,

[a mile.'

At rest, at twilight, on the waves, lie heaving many

The armada slowly sailed up the Channel; vast galleons, with many decks and floating towers, showing like castles on the deep. From the very first there were not wanting signs to show that the presumptuous title of the Invincible Armada was as vain as proud. The chapels, pulpits, and gilded Madonnas in some of the galleons did not save them from suffering severely from a gale; the galley-slaves arose in one of the vessels and made their escape to France; the English hanging on their rear captured some of their most richly laden vessels. The Spanish ships passed the dangerous rocks of the Eddystone, then unilluminated by friendly lighthouse; the good people of Plymouth watched them, wondering when the attack would come; the big vessels lie becalmed on St. James's Day below the white cliffs of Freshwater; watchers from the downs of Brighton and from the heights of Hastings might see the vast array, in silent magnificence, sweeping slowly on-wards. The English incessantly hung upon their rear during that six days' progress up the Channel, with sharp fighting prosperous to their arms. The great issue was deferred until the Spaniards should be in the narrow seas. At such a time, thus writes Sir Francis Drake, 'We have the army of Spain before us, and mind, with the grace of God, to wrestle a fall with them. With the grace of God, if we live, I doubt not but ere it be long so to handle the matter with the Duke of Sidonia as he shall wish himself at St. Maria among his orange-trees. God give us grace to depend upon Him, so shall we not doubt victory, for our cause is good.'

On Saturday afternoon, August 6th, the great fleet was lying in the Calais roads. Along the low, sandy shore lay the host of ships, the largest and the most heavily armed in the world. Face to face, almost within cannon shot, were the English, in their comparatively tiny vessels. At this point was to be accomplished the junction with the veteran army of the Netherlands under the renowned Farnese. Providentially Dutch war-boats were swarming in all the estuaries and inlets of the Flemish

shores to prevent this, thus repaying the deep debt of gratitude under which the brave Netherlands lay to the English. 'Never since England was England, had such a sight been seen as now revealed itself in those narrow straits between Dover and Calais,' says Mr. Motley. 'It was a pompous spectacle, that midsummer night, upon those narrow seas. The moon, which was at the full, was rising calmly upon a scene of anxious expectation. Would she not be looking, by the morrow's night, upon a subjugated England, a re-enslaved Holland, upon the downfall of civil and religious liberty? Those ships of Spain, which lay there with their banners waving in the moonlight, discharging salvoes of anticipated triumph, would they not, by daybreak, be moving straight to their purpose, bearing the conquerors of the world to the scene of their cherished hopes?' Sunday morning—a day much to be remembered—dawned upon the two navies 'calmly gazing at each other, and rising and falling at their anchors as idly as if some vast summer regatta was the only purpose of that great assemblage of shipping.'

That memorable Sunday prayer arose, simple and solemn, throughout the land:—'Save and deliver us, we humbly beseech thee, from the hands of our enemies.' The Queen herself composed a prayer, found in a MS. in the British Museum, which she sent to 'the general of her Highness's army at Plymouth' as her private meditation: 'Most Omnipotent and Guider of all our world's mass, that only searchest and fathomest the bottom of all hearts' conceits, and in them seest the true original of all actions intended, how no malice of revenge or quittance of injury, nor desire of bloodshed, nor greediness of lucre, hath been the resolution of our now set out army; but a heedful care and wary watch that no neglect of foes or over surety of harm might breed either danger to us nor glory to them; these being grounds, Thou that didst inspire the mind, we humbly beseech, with bended knees, prosper the work, and with the best

forewinds guide the journey, speed the victory, and make the return the advancement of Thy glory, the triumph of Thy fame, and surety to the realm with the least loss of English blood. To these devout petitions, Lord, give Thou Thy blessed grant. Amen.'

The commanders of the English fleet determined to send out fire-ships against the Armada. It was just midnight, and all was still save for the unquiet surge of the waters and the sobbing gusts of a coming tempest. Suddenly the waters became luminous. Six flaming vessels bore down upon the Armada. A horrible panic seized upon the Spaniards; they burst into shrieks and outcries. Confusion and flight indescribable everywhere prevailed. When the morning broke, the English found that they had to encounter a broken and demoralized armament. For some time the contest continued, victorious on the side of the English; but a mightier than any human hand interposed to terminate the struggle.

The weather had, on the whole, been moderate, although there had been heavy seas and threatening signs, but now the wind shifted. A terrible gale came on, a gale more terrible than had ever before been known at that season of the year. The English fleet was scattered, and many of the ships came into great peril, especially 'among the ill-favoured sands of Norfolk.' Within four or five days, however, they all arrived safely in Margate roads. Far different was the fate of the Spaniards. But Mr. Motley will best tell the story.

'Over their Invincible Armada, last seen by the departing English midway between the coasts of Scotland and Denmark, the blackness of night seemed suddenly to descend. A mystery hung for a long time over their fate. Damaged, leaking, without pilots, without a competent commander, the great fleet entered that furious storm, and was whirled along the iron crags of Norway and between the savage rocks of Farøe and the Hebrides. In those regions of tempest the insulted North wreaked its

full vengeance on the insolent Spaniards. Disaster after disaster marked their perilous track; gale after gale swept them hither and thither, tossing them on sandbanks or shattering them against granite cliffs. The coasts of Norway, Scotland, Ireland were strewn with the wrecks of that pompous fleet, which claimed the dominion of the seas; with the bones of those invincible legions which were to have sacked London and made England a Spanish vice-royalty.'

Within two months from the time of his sailing out of the Groyne, the Duke of Medina Sidonia crept back into the harbour of Santander, with the shattered fragments of his mighty armament.

Such was the end of the Spanish Armada. All that incalculable expense, all those enormous levies had shrunk away to this miserable conclusion of a lamentable expedition. Our nationality was saved to be preserved for noble and Christian uses. The invader could not avail aught against

'This royal throne of kings, this sceptered isle,
This happy breed of men, this little world,
This precious stone set in the silver sea,
This blessed plot, this earth, this realm, this
England.'

'Their invincible and dreadful navy,' said Sir Francis Drake, 'with all its great and terrible ostentation, did not in all their sailings about England, so much as sink or take one ship, bark, pinnace, or cock-boat of ours, or even burn so much as one sheep-cote on this land.'

It was not till this terrible danger was past that Elizabeth made that memorable address to her army with whose burning words most of us are familiar. But this circumstance does by no means detract from the greatness of the great Queen. It was yet possible that the Armada might halt and make a descent on this coast. The great army of Spain was still on the opposite shore. It was fully expected that the contest would yet be fought out on English ground. That noble speech we now give: 'My loving people, we have been persuaded by some that are careful of our safety to take heed how we commit

ourselves to armed multitudes, for fear of treachery ; but I assure you I do not desire to live to distrust my faithful and loving people. Let tyrants fear ! I have always so behaved myself that, under God, I have placed my chiefest strength and safeguard in the loyal hearts and goodwill of my subjects ; and therefore I am come amongst you, as you see, at this time, not for my recreation and disport, but being resolved in the midst and heat of the battle to live or die amongst you all ; to lay down for my God, and for my kingdom, and for my people, my honour and my blood even in the dust."

The gratitude of the nation rose high to heaven for the merciful deliverance vouchsafed. Queen Elizabeth publicly attended service in St. Paul's Cathedral, surrounded by her great captains and statesmen, and with banners and trophies. Throughout all the churches of the land were raised 'public and general thanks unto God, with all devotion and inward affection of heart and humbleness, for His gracious favour extended towards us in our deliverance and defence, in the wonderful overthrow and destruction showed by His mighty hand on our malicious enemies the Spaniards, who had thought to invade and make a conquest of the land.'

The time of reprisals followed. It was a favourite amusement with Drake and his companions to dash into some Spanish port, Cadiz, or Vigo, or Ferrol, and 'sing the King of Spain's whiskers,' as they contemptuously phrased the daring exploit. Coruña, the harbour whence the Armada sailed, was specially marked out for vengeance. It was taken by Drake and Norris, with only twelve hundred men, in the year following the defeat of the Armada.

Yet once again Coruña was linked with

our national history. Here Sir John Moore turned to bay against the overwhelming forces of Soult. With only about thirteen thousand men he repelled the attack of the French army, which mustered twenty thousand, and inflicted upon them so sharp a defeat as to secure the unmolested embarkation of the troops. His last words as he died in the moment of victory were, 'I hope the people of England will be satisfied ; I hope my country will do me justice.'

Not a drum was heard, not a funeral note,
As his corse to the ramparts we hurried ;
Not a soldier discharged his farewell shot
O'er the grave where our hero we buried.

We buried him darkly at dead of night,
The sod with our bayonets turning,
By the struggling moonbeams' misty light,
And the lantern dimly burning.

No useless coffin enclosed his breast,
Not in sheet nor in shroud we wound him ;
But he lay like a warrior taking his rest,
With his martial cloak around him.

Few and short were the prayers we said,
And we spoke not a word of sorrow,
But we steadfastly gazed on the face of the dead,
And we bitterly thought of the morrow.

We thought, as we hollowed his narrow bed,
And smoothed down his lonely pillow,
That the foe and the stranger would tread o'er his head
And we far away on the billow !

Lightly they'll talk of the spirit that's gone,
And o'er his cold ashes upbraid him ;
But nothing he'll reck if they let him sleep on
In the grave where a Briton has laid him.

But half of our heavy task was done,
When the clock struck the hour for retiring ;
And we heard the distant and random gun
That the foe was sullenly firing.

Slowly and sadly we laid him down,
From the field of his fame fresh and gory ;
We carved not a line, we raised not a stone,
But left him alone in his glory !"



BURMESE PAGODAS.

PAGUN, in Burmah, is certainly, in a sense, the most remarkable religious city in the world. Rome, Benares, Jerusalem, Kieff—none of these can boast so great a wealth and lavishness of fanes. Just below it the Irrawaddy expands into the semblance of a great lake. Bounding and beyond this expanse of blue water stand up against the sky the countless temples of Pagun. They vary as much in shape as in size. Some remind one of the pyramids of Egypt, their sloping faces serrated by ledges; others throw up huge domes crowned with airy lanterns; yet others rise in snow-white pinacles, like the needle-points of minarets. Splendid and stupendous masses of masonry, most of them of a dull red tint, like weather-worn granite, rise from a bed of dark-tinted foliage that throws up the outlines of the structures with vivid distinctness.

The temples of Pagun, some all but perfect, but most in ruins, stud thickly a space of about eight miles in length along the river face, and having a depth of about two miles. The present town of Pagun—a cluster of wicker-work shanties—stands on the river bank, within the decayed ramparts of the ancient city, and these decayed ramparts and the fragments of a massive gateway on the land side are the only remains extant in Pagun that are not of a religious character. Yule estimates the number of the Pagun temples at “not less than 800, and probably 1,000.” A few of the temples have from time to time been repaired, and are still more or less frequented by worshippers. But by far the greater number have been abandoned to the bats and owls, and some have undergone the degradation of being used as cow-houses. All kinds and forms are to be found among them. To quote Yule—“The bell-shaped

pyramid of dead brick-work in all its varieties; the same raised over a square or octagonal cell containing an image of the Buddha; the bluff knob-like dome of the Ceylon Dagobats with the square cap which seems to have characterised the most ancient Buddhist Chaityas as represented in the sculptures at Sanchi, and in the ancient model pagodas found near Buddhist remains in India; the fantastic Bo-phyra, or pumpkin pagoda, which seemed rather like a fragment of what we might conceive the architecture of the moon than anything terrestrial, and many variations on these types. But the predominant and characteristic form is that of the cruciform vaulted temple.”

Immediately on ascending the river bank we are among ruins. Débris of brick caked with chunam strewed the ground in fantastic shapes, reminding one of the ruins of Famagusta. The three principal temples of Pagun are the Ananda, the Thapinyu, and the Gandapalen. The last lies nearest to the river. It is very conspicuous on the approach to the place from the river; gleaming in its white plaster, with its numerous pinnacles and lofty central spire, it is seen from far down the Irrawaddy, like a dim vision of Milan Cathedral. Its shape is cuneiform, having a massive basement with porches, and rising above in a pyramidal gradation of terraces that form the base for the spire, tapering to a height of 150 feet, in the form of an elongated cone. The great mass of the interior is solid, and only the projections of the cross are chambered. In the centre of each face is an ornamented arched doorway, whence a lofty corridor conducts to a recess, in which is seated a gigantic gilt figure of Zadama. Subsidiary concentric corridors connect the four main corridors, and these are recessed at regular intervals by minor shrines.

The Ananda stands outside the walls of

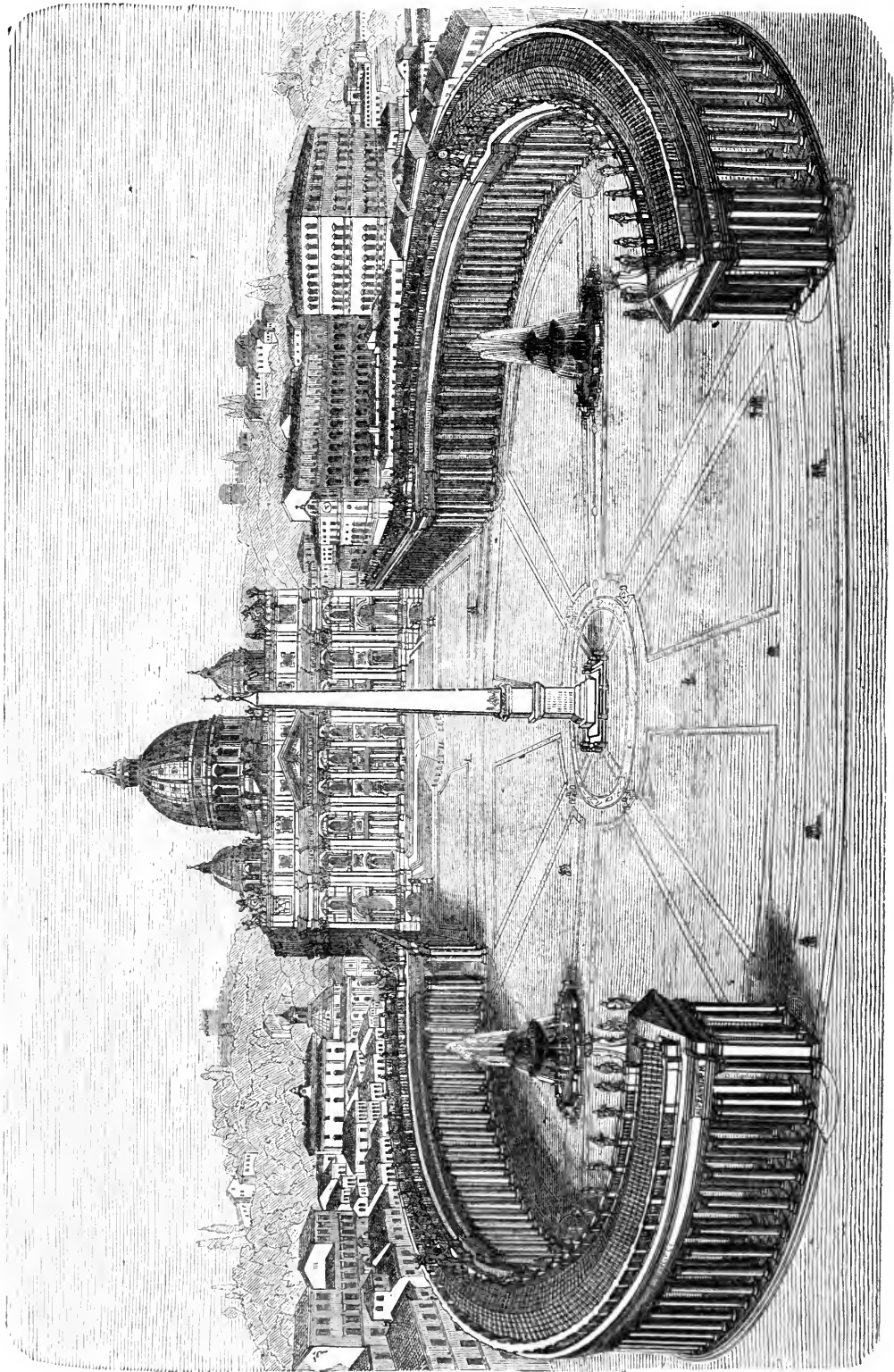
the ancient city. It is reached by a wooden and rather ricketty colonnade covered with carved gables, and tapering slender spires. The exterior of the Ananda is pure white, save where disfigured by patches of gold leaf. It is in plan a square of nearly 200 feet to the side, and broken on each side by the projection of large gabled vestibules, which convert the plan of the structure into a perfect Greek cross. These vestibules are somewhat lower than the square mass of the building, which rises to a height of some 35 feet in two tiers of windows. Above this rise six successively diminishing terraces connected by curved converging roofs, the last terrace just affording space for the noble spire that crowns and completes the edifice. The lower half of this spire is a bulging mitre-like pyramid, the upper half is the moulded taper pinnacle common to most pagodas. The building internally consists of two concentric and left corridors, having intercommunication by passages for light opposite the windows, and by larger and loftier passages extending inward from the doorways in the centre of each projection. Opposite the inner extremity of each of these passages is a deep recess, in which stands a colossal gilt figure, robed, of Ananda, the disciple of

Zadama. These figures vary slightly in size and gesture, but all are in attitudes of prayer, preaching, or benediction. Each stands facing the entrance on a great carved lotus pedestal, within rails, like the chancel rails of an English church. The lighting of these unique chambers is most artistically contrived. The lofty vault, nearly fifty feet high, in which stands the great gilded image, canopied by a valance of gilt metal curiously wrought with precious stones or their imitation, reaches up into the second terrace of the upper structure, and a window pierced in this sends a light from far above the spectator's head, and from an unseen source, streaming upon the face of the idol with a strange and powerful effect. In the centre of the vestibule, on the western side, stands a huge block, on the surface of which is dented the feet of Zadama. In the galleries and corridors running round the building, disposed in niches along the massive walls, at regular distances apart, are numerous images of Zadama, and sculptured groups of figures representing particular events of his legendary life. On the edge of the step in the main vestibule kneel the Burmese at prayer, their sonorous but somewhat monotonous accents echoing through the vaulted corridor.

ST. PETER'S AT ROME.

POSSESSING the advantage of an atmosphere of such pure clearness that distance to the eye appears to be annihilated, St. Peter's is an object of unimaginable attraction to the traveller on every side as he approaches Rome. Nor is the nearer approach less impressive. A wide and sufficient area lies before the western entrance, enclosed either side by a semi-circular crescent colonnade of simple Doric, and of most chaste design. An obelisk occupies the centre of the area, of

sufficient size and elevation to be in itself an object worthy of notice, and yet not so large as to be any other than an appendage to, and a preparation for, the building to which it is attached. On either side of the obelisk, almost at equal distances between it and the colonnade, is a fountain continually jetting forth its pure and sparkling waters, giving a cheerfulness to the scene by the vivacity of their play, and diffusing a coolness all around. Within a few yards of the front, the crescent columns are continued in an avenue, at right angles with its ter-



ST. PETER'S ROME.

mination and the church, and up to the very walls of the latter. The front is itself sufficiently imposing from its magnitude and height ; but it is the interior and cupola, together with its tremendous extent, which render St. Peter's one of the greatest wonders of the world. Compared with the interior, the other is mean. Near this site stood the Pantheon, an ancient temple of Pagan Rome, of beautiful design, and crowned by a cupola of exquisite proportions. This Bramante was very desirous of incorporating in his own plan, but what appeared to him an insuperable obstacle presented itself. The cupola of the Pantheon was erected upon pillars, and, consequently, could not be adopted, as its height was too insignificant to surmount the roof of the new edifice. Shortly after this, however, Bramante died, and Michael Angelo Buonarroti, a man who has left an imperishable name in the several arts of architecture, painting, and sculpture, and whose genius was as sublime as it was daring and successful, was chosen to succeed him. Angelo at once perceived the beauty of Bramante's first conception of the cupola, and, with the ebullition of a mind proportioned to the work he had undertaken, exclaimed, while alluding to the Pantheon, "a similar cupola will I raise in the air," and well has he performed his promise. There it is, rising with unrivalled majesty to the height of nearly five hundred feet in the bright blue sky of Italy, one-fourth higher than our own St. Paul's, and unmatched in extent and grandeur by any similar creation of modern art.

Upon this work Michael Angelo spent eighteen years of his life ; yet—for one life was too short to complete so vast an undertaking, especially with the appliances of labour then possessed—the architect died, leaving it unfinished. The same powers were not possessed by any of his followers. He had judiciously taken the plan of Bramante so far as the Greek cross was concerned, but those who succeeded him evinced less taste and judgment,—perhaps, in justice to their professional reputation,

we ought to say, less of independence, for the form of the Greek cross was exchanged for that of the Latin cross, a lengthy and unequal figure, in order that the whole of the site which had been occupied by the church of Constantine should be comprised within the range of the new building. To this circumstance the best judges mainly attribute its defects, which, notwithstanding its grandeur, are considerable.

The first stone was laid in 1506, by Julius II., and the temple was finished 1622, during the pontificate of Paul V., the seventh pope after Julius. During this long period of 115 years, every exertion was made by the several spiritual sovereigns of Christendom to expedite the work, and it required all their power, and the expenditure of no less than eight millions of money, equivalent in value to nearly 160 millions in our day, to complete it within that time. Even then it was the temple alone that was finished. No less than 150 years more were required to finish the accessories, at an additional expense of nearly two millions, equivalent almost to five and twenty millions of the present day. The work was at length completed in 1784, having occupied a period in its construction of not less than 278 years, no small period of the Christian era ; and it is said that at the present time it does not cost the Papal see less than £6,000 a year to keep it in repair. The clear inside length of the church is six hundred and fifteen feet ; the breadth of the transepts four hundred and forty-eight feet. The extreme height, from the level before the piazza to the summit of the cross which surmounts the building, is four hundred and sixty-four feet. The distance from the extreme line of the ellipsis of the colonnades to the portals of the church, is nine hundred feet, which added to the outside length of the church, give a monstrous extent of not less than six hundred yards occupied by the cathedral and its appendages.

The cupola is covered externally with lead ; but its massive masonry is of Traver-tine stone.



THE PRINCE OF WALES IN INDIA.

HERE is nothing which so pleases a captive elephant as to batter one of his free brethren into such a state of stupidity and weakness that he is unable to frustrate the arts of the snarer, who slips the rope and chain round his legs and leads him into servitude. In Nepaul this science is practised in perfection. There are certain elephants of great strength, courage, and address, which are kept for the purpose of fighting and catching their species. The one which took a leading part in that work on the day when the Prince of Wales went out to see it, was a huge fellow with one tusk, having lost the other in action. He was named "Jung Pershad;" his head and part of his body were painted red. "There were," says Dr. Russell, "two herds of elephants in the wood east of the camp, and it was Sir Jung's desire to capture them under the eyes of the Prince. Horses were ordered to be ready at an early hour, and the fast elephants with pads were sent on ahead for the Prince and his party. Howdahs cannot be used for this work—they would be swept off by the branches of the trees. The Prince had to get astride on a pad, holding on by a strap—the mahout in front with a 'kukeree,' or billhook, to cut creepers and urge his elephant on with twitches in the ear, and a man behind with a mallet to hammer the creature into full speed. These trained racers will do seven miles an hour, the usual pace of the animals being only two miles and a half.

When the party had ridden a few miles they found the pad elephants and a number of others. The fighting fellows were on ahead engaged with some of the wild ones, who, headed by an old tusker, were showing a bold front and giving battle resolutely.

'Forward!' was the word. The Prince had at least a novel sensation now, for the elephant, 'kukereed' before and malletted behind, dashed on at a speed which would have been exhilarating enough; but he went crashing through trees, down ravines, up nullahs, through jungle in the most reckless manner; and he had a store of water in his proboscis, which he replenished at every pool and sluiced himself with to cool his sides as he ran, drenching the Prince unmercifully. After two hours of this wild career, over very difficult country, Sir Jung called a halt, and suggested that they should send back and have the tents moved up to the place where they were, and continue the chase. But it was considered best to return to camp, as it might be difficult to have the tents struck, moved, and pitched by the evening. So the hunt was up again, till Sir Jung once more pulled up and told the Prince he was twenty-five miles from his camp, and they must give up and return.

As they were dismounted, taking some refreshment, runners came up to announce that some of the wild herd had broken back. 'Mount at once,' exclaimed Sir Jung; 'you are not safe. Get on your elephants.' Another scout came to report that the tusker had struck to the left, and that the fighters were engaged with him. Off went Prince and party full speed again; but they did not see the battle. They only beheld the result; for, about ten miles back, they came on the captive—his legs tied, an elephant on each side, and one before, and one behind him, his proboscis dejected, his tail bleeding, his ribs punched, his head battered, his bearing exceedingly sorrowful. Sir Jung was by no means pleased. The men should have 'headed' the elephants, and he went off to tell them so; but he returned with the Prince, and in the course of the night and early morn-

ing the herd, fourteen in all, were brought in captive, and are now fastened up to undergo training and taming, one little creature being reduced to milk diet by hand. It was an experience. But every one who said he was glad he had done it also admitted he did not want to do it again. The Prince was about the freshest of the whole party."

One of the gentlemen of the party tells how the Prince's elephant was charged by a tiger:—"The game lay in a patch of forest, which was hemmed in by the pad-elephants. The howdah-elephants joined the circle at intervals. They all advanced into the wood. The ground was at first rising or hilly, but they soon came to a gully covered with high grass. Into this the elephants went, crashing down all before them. A cry of 'Bagh!' or 'Tiger!' was heard to the left hand, and the reports of two guns. The circle of advancing elephants drew in, rapidly narrowing, and surrounded a clump of grass, which seemed alive with tigers. The Prince had the Maharajah on his left hand, and further to the left was General Sir D. Probyn, pistol in hand. The tigers, finding themselves hemmed in, rushed furiously round the circle, roaring loudly. The elephants were trumpeting, men shouting, and it was a scene of great confusion. Above all was heard the shrill voice of Jung Bahadoor, hurling imprecations on the head of any one who should allow the line to be broken. The grass on the side where the Prince was, had gradually become trampled down; yet a patch was still left, giving covert to the tigers. Out of this patch of grass they kept charging into the open. In one of their charges, the elephant ridden by his Royal Highness was attacked. Though a staunch animal, this elephant did not keep his front towards the tiger, but turned so as to receive the tiger upon his vast haunch. This movement sent the mahout and the other persons upon the elephant reeling backwards; but the Prince instantly recovered himself, coolly turned round, and fired. The tiger was killed, his head being at that time very near the legs

of Mr. Peter Robertson, the Prince's attendant, then seated behind him. Four tigers were killed on this one spot; but the biggest of them, the paterfamilias, is supposed to have escaped." "According to the best authority," Dr. Russell writes, "there has never been, at any rate in recent times, such a bag of tigers made in Nepaul as there was to-day, save on one occasion, when eight instead of seven fell to the rifle; but I believe the Prince of Wales is the only sportsman who ever shot six tigers in one day in this country. Of these one was, as we have seen, killed before twelve o'clock; the others were killed in what was really one beat, which did not last more than an hour. The Prince killed two of these with single shots—one for each; he disposed of three in two or more shots each, and one was accounted for by 'outsiders.' The scene of this great slaughter was an immense tract of deep prairie on one of the branches of the Sarda—an island with sparse forest and thick jungle, such as tigers love.

The afternoon's sport was inaugurated by a display rarely given to any one to witness. With imperfect knowledge on the subject, I hazard the assertion that such a spectacle was never beheld by living man; and, indeed, it may be doubted if the like was ever seen in past ages. This was a procession of 700 elephants in single file. The prince sat in his howdah waiting for three-quarters of an hour, and watching the wonderful column cross the arm of the Sarda. As I saw them afterwards they reminded me of an immense army seen at a distance moving in columns. There were 600 elephants belonging to Nepaul, and about 100 which had come over with the Prince. To each elephant there were at least two persons, the mahout and a man on the pad; several carried three or four people. It was not too much to say that there were 1800 natives engaged in the beat. The money value of the animals was very great, for all were good, and Sir Jung Bahadoor had sent away 200 of the 800 he had assembled because they

were not up to the mark or fit to do duty with the Prince of Wales in the jungle. Unless you have seen what mountains of sugarcane and green food an elephant can stuff down his throat you can form no idea of the vastness of the commissariat arrangements for this hunting party. When the elephants were all in position they wore ship from line stem and stern to line ahead, and began to move over the prairie like a vast fleet sweeping over the face of the deep.

The death of the first tiger has been described in such detail that your readers may be spared the account of each find and each finish. It may be as well to state at once that there was nothing done to secure such a bag for the Prince which was not perfectly legitimate. The animals were all *feræ naturæ*—‘native and to the manner born;’ but they had been carefully watched for many weeks previously, and had been preserved very strictly, as far as tigers can be subjected to the preliminaries for destruction called preservation. The open country and the hilly districts, where it would not have been possible to beat, were ‘driven’ for tigers, and the beasts were gradually concentrated in a favourable situation where deer and water were abundant. But one, at least, of the beasts which perished to-day was not content with deer—a tigress, fetid, lean, and hideous; she was a man-eater, and within this very week had devoured a human being. Her food did not agree with her, at all events, for she was lank and wretched-looking. It is generally an old or sickly tiger which takes to man-eating. Too slow or too weak to run down antelope or deer, he pounces on some poor wayfarer at nightfall, and once he has found out how easy a prey a man is, he never tries for any other food. Of the six killed in the afternoon not one charged home to an elephant, but several made believe, or were about to do so, when they were stopped by a rifle ball. It is but just to say that, if Sir Jung Bahadoor had provided so admirably for the sport of his master’s Royal guest, the Prince also acquitted himself worthily, and that his

shooting was so good as to draw forth the encomiums of the famous Nepaulese shikaree, who has killed to his own rifle more than 550 tigers, and who hopes to score at least 600 before he quits the field. So many of these *felidæ* has Sir Jung Bahadoor slain in his time, and is yet quite capable of adding to the number with much certainty whenever occasion offers.

When the Prince returned to camp there was excitement among the natives. The news had spread. Soon the six tigers were laid out, under Sir Jung Bahadoor’s superintendence, in a row—four tigresses, two tigers—just as hares are put at the end of a drive at home. They were measured, and their wounds were looked at; and outside the circle formed by the Royal party and the Nepaulese round the tigers gathered the silent natives, admiring somewhat reverently, for they have strange feelings about the tiger, and hate and respect him, while connecting his existence with their own in fanciful, mysterious fashion.

The Prince steadily refused to listen to advice. ‘Fire just before you, Sir. There he is, in the grass in front!’ He would not fire at any object he did not see. Once, when Sir Jung pointed out a tiger crouching in front which the Prince could not see, the elephants being close alongside, his Royal Highness crossed over from one to the other, and shot the beast from Sir Jung’s howdah. When three or four tigers were to be seen at one time gambolling about in the grass like so many cats in a London square, it was natural that sportsmen unused to the business should feel excited; but, on the whole, the general feeling was that the creatures were not as ‘game’ as they might have been. An old hand observed, ‘When they have seen as much of the gentlemen in stripes as I have done, they will think them far more interesting in the long grass than when they are mounted on the howdahs or crawling off the mahouts.’ I hear that there were two man-eaters among the slain. The clothes and some bones of one unfortunate were found near the spot where the murderer met his doom.”



MUNGO PARK.

THE EXPLORER OF THE NIGER.

THE two great rivers of Africa, the Niger and the Nile, have puzzled learned men for 2000 years. What they wished to know was, where the Niger went to, and where the Nile came from. The last few years have settled both questions, but not until great sums of money have been spent, and many valuable lives thrown away.

Mungo Park, the first explorer of the Niger, was born near Selkirk, in Scotland. He received a good education, and when a young man made a voyage to India as ship's surgeon. This voyage gave him such

a love of travel, that on his return home he engaged himself to the Royal Society to go to Africa and try to find out whether the Niger ran from the east to the west, or from the west to the east—a subject which excited much attention at the time, although it may seem to us trivial now.

He sailed in 1795, and landed at the Gambia, having two or three thousand miles of dangerous country before him to thread, of which no man whom he came near knew anything whatever. He started *alone*, and turned his face, with faith in God, towards the interior, passing through Foulah, Bendon, and the country of the Jaloofs. Often

and often was he detained in captivity on his way ; many times was he sick and hungry, but he still went on, often barefoot, till the sight of the Niger flowing from west to east, "a glittering river as broad as the Thames at Westminster," rewarded him for all. His first act was to give thanks to the Ruler of all things !

He was robbed by banditti on the 25th of August, 1796, when on his road from Kooma to Sebidooloo, and was stripped of everything. "After they were gone," he says, "I sat for some time looking around me with amazement and terror. Whichever way I turned nothing appeared but danger and difficulty. I saw myself in the midst of a vast wilderness, in the depth of the rainy seasons, naked and alone, surrounded by savage animals and men still more savage. I was five hundred miles from the nearest European settlement. All these circumstances crowded at once on my recollection, and I confess that my spirits began to fail me. I considered my fate as certain, and that I had no alternative but to lie down and perish. The influence of religion, however, aided and supported me. I reflected that no human prudence or foresight could possibly have averted my present sufferings. I was indeed a stranger in a strange land, yet I was still under the protecting eye of that Providence who has condescended to call Himself the stranger's friend. At this moment, painful as my reflections were, the extraordinary beauty of a small moss, in fructification, irresistibly caught my eye. I mention this to show from what trifling circumstances the mind will sometimes derive consolation ; for, though the whole plant was not larger than the top of one of my fingers, I could not contemplate the delicate conformation of its roots, leaves, and capsula without admiration. Can that Being who planted, watered with perfection, in this obscure part of the world, a thing which is of so small importance, look with unconcern upon the situation and sufferings of creatures formed after His own image ? Surely not ! Reflections like these would not allow me

to despair. I started up, and, disregarding both hunger and fatigue, travelled forward, assured that relief was at hand ; and I was not disappointed. In a short time I came to a small village."

"The sun had reached his mid-day height,
And poured down floods of burning light
On Afric's barren land ;
No cloudy veil obscured the sky,
And the hot breeze that struggled by
Was filled with glowing sand.

Dauntless and daring was the mind
That left all home-born joys behind,
These deserts to explore,—
To trace the mighty Niger's course,
And find it bubbling from its source,
In wilds untrod before.

And ah ! shall we less daring show
Who nobler ends and motives know
Than ever heroes dream ;
Who seek to lead the savage mind,
The precious fountain-head to find,
Whence flows salvation's stream ?

Sad, faint, and weary on the sand
Our traveller sat him down, his hand
Covered his burning head ;
Above, beneath, behind, around,
No resting for the eye he found,
All nature seemed as dead.

One tiny tuft of moss alone,
Mantling with freshest green a stone,
Fixed his delighted gaze ;
Through bursting tears of joy he smiled,
And while he raised the tendrill wild,
His lips o'erflowed with praise.

Oh, shall not He who keeps thee green,
Here in the waste, unknown, unseen,
Thy fellow-exile save ?
He who commands the dew to feed
Thy gentle flower, can surely lead
Me from a scorching grave.

The heaven-sent plant new hope inspired,
New courage all his bosom fired,
And bore him safe along,
Till with the evening's cooling shade,
He slept within the verdant glade,
Lulled by the negro's song."

Having succeeded in settling the direction of the current of the Niger, he returned by another route of a thousand miles, through many hostile tribes, to the sea, and returned home after three years' absence.

His story made a great sensation at the time, far more than the return of an African traveller would make now. There was something novel at that time in the stories of black chiefs and kings, with their towns, houses, occupations, palavers, and so on.

Park lived at home for some years, till he was summoned to London by Government, with a request that he would lead an expedition to discover this time where the Niger emptied itself into the sea. His friends, who much loved him, all begged him not to accept the offer. Riding one day with Sir Walter Scott, Park's horse stumbled and fell. "Ah, Mungo," said the poet, jestingly, "that is a bad omen." "Fears follow them that fears follow," was the instant reply of the traveller.

In 1805, Park, accompanied by a party of five, left England once more. In Africa thirty-five volunteers accompanied him, and all set off, keeping to the track by which Park had returned. In a few days the ranks were thinned by fever. In a few

weeks three-fourths of the party had died. Reaching the Niger they turned to the west, and followed its course. In a short time all the party had died except himself and four soldiers, one of whom was mad. Park wrote, "I am determined to discover the termination of the Niger or perish in the attempt."

Brave Park! He *did* perish in the attempt, for he was killed by the natives at a place called Borissa, through persisting in passing against their will.

Since then there have been many other Niger expeditions, all with more or less evil fruits. Clapperton and the two Landers followed Park, and discovered the termination of the river. Others have since *ascended* the river to the place where Park died, and so have completed all. The river, however, is now found to have for a thousand miles a course from north to south, rather than from east to west. It receives many great rivers as it rolls along, one of which is the Tshadda.

OUR LIFE-BOAT HEROES.

THE pilchards were safely housed ; but had the shoal arrived a few days later, not a fish would have been taken. The soft calm summer days came suddenly to an end, and winds arose, and the waves with them. I never heard such wind. The first night of it, I thought the "Look-out" must have been carried bodily away, and become an inland residence. It began by a few angry flourishes of trumpets—the summons to surrender ; and then, when we didn't, the assault. The whole force of that north-wester was formed, as it were, into a storming-party, and threw itself *en masse*, not upon Boddlecombe, as it seemed, but upon our dwelling. Its onslaught was so terrific that one could not imagine it had any superfluous energy to

bestow elsewhere. It did not ebb and flow, as the winds within our experience had been wont to do. It never paused to take breath, but having once fallen upon us, continued to heave and push till the house rocked to its foundations. Those lines of the poet occurred to me in which the seaman expresses his wonder how the landsman can endure the storms which bring falling chimneys and house-tops upon his head ; yet even then I shuddered at what the raging ocean must be like, and how much more terrible it must be to be out yonder than in my rocking bed. Nothing could be seen of the sea, for both moon and stars were hidden ; but the roar of it was beyond measure appalling, and the spray was poured upon our windows—high as we stood—in floods. You might have

thought they were being cleaned by a garden-engine. Notwithstanding the frequent thought, "Come, this *must* be the worst of it," the storm yet increased in strength, and also in literal violence. Besides the broad-side rush of it, its sharpshooters rattled and volleyed through every creek and cranny, and swore in the most horrible manner through the closed doors.

The Boddlecombe life-boat lived in an edifice expressly built for her accommodation; and when she took the air, was drawn on wheels by four horses, so that she could be launched from any part of the coast as wind permitted. She was a gaily-painted affair; but she had done excellent work, and all Boddlecombe—nay, all England—was justly proud of her. Of no war-ship could more noble annals have been written than those of the little *Saveall*; and she was manned by as brave a crew as ever put to sea from an English harbour. To see them in their uniforms of blue and white, or clothed in waterproof, with hats to match, cleaving the seas with that long even stroke of theirs, was a pleasant sight to any eyes; but what must it have been to those in peril, clinging to rope and spar, and drenched with spray, who saw in them the helping-hand of Heaven! This had happened many times, and it was fated to happen again that very day.

News came from the watch-towers, that far-out at sea—miles off—there was a large vessel scudding bare-poled before the wind with signals of distress. We brought our telescope to bear; and through the flying foam, and, as it seemed, on the horizon's verge, we could just discern her. She looked like a huge log, and, though more experienced eyes had remarked her reversed ensign, we could see no flag at all. Without one speck of colour to relieve its wretched aspect, and almost without shape, this floating object floundered on apace, more and more out to sea; for the wind, though still blowing fiercely—and far too much for life-boat *practice*—had changed its course, till at last we could see her no longer. We were told she was then seven

miles off the land. It was the great distance from the shore, and not the fury of the sea, which for a time deterred the crew of the *Saveall* from pulling out after her. She was scudding almost as fast as the life-boat itself could sail, and they might not come up with her—even if they did so at all—till she was a score of miles away. Then, how should they return in the teeth of such a wind as this? It was not to be expected, even of Cornish seamen, that they should run so desperate a hazard.

But there was one in the place who had, on occasion, shown himself as brave a man as ever pulled an oar, though that was not his calling. This was the clergyman. In many a riskful rescue on that coast he had greatly distinguished himself; and his purse, though not a full one, was always open when the poor had need. A rich man, of generous but mistaken feeling, might have gone down to the pier-head—where the crew were standing with their sou'-westers and cork jackets on, but despairing of the ship on account of the great distance—and offered five pounds a man to whomsoever would venture. But life-boat men do not sell their lives in that fashion. It may be noticed that they will often not put out to sea after mere property—that is, when a ship is known to be deserted—though, in much stormier weather, they will do so to save human life. It is not gain which tempts them, though God forbid that they should lack such inadequate rewards as man can give them. Nor are they so blind to peril, but that the remembrance of wife and little ones, dependent on their toil for daily bread, will sometimes make them pause. The thought of those to-day, and of the weary miles of hostile wind and sea that must needs intervene between them and home, and would possibly cut them off from it for ever, compelled them to be prudent: they were not afraid of the sea, not they; but they mistrusted their own powers of endurance, as well they might. Still, they felt for the poor souls out yonder driving to their doom, and tremblingly passed their telescopes from hand to hand.

I was on the pier myself, when down the parson came, with his grave resolute face, and asked the men to go. He made no speech—platform oratory is quite unknown at Boddlecombe—but addressed to each singly a few earnest words. There was no attempt to moderate the peril—far from that, but he all the more insisted on the duty. He asked it, too, just as though it were a personal favour; and not a man denied him—no, not one. The nearest approach to a refusal was an irresolute scratching of the head, or an “I suppose I must.” His hardest task was to persuade the women to let the men go; for you can’t pick out your single men, or those who have no “ties”—no old or young folks dependent on them for such a service; the quickest eyes, the strongest arms, the coolest heads, must alone be chosen.”

“What! would you take our Willie from us—our only bairn?” cried one old woman.

“It is for God’s own work,” said the parson, gravely, “and you will never repent his going.”

But I could see that he spoke like a man under the sense of a great responsibility; one who felt that at his door, if Willie was drowned, she would lay the death of her son. The father, a weather-beaten old sailor, by name Michael Sturt, whose age incapacitated him from doing any work beyond pottering about the shore and picking up drift-wood, I had often spoken with, and he had told me that their Willie maintained both him and the ‘old woman;’ but now he said nothing, and only pressed his lips tight together when the brave young fellow, with his smiling handsome face, answered: “Well, Parson, I’ll go!”

There were nine of them in all, stalwart and well-looking men, and with a certain nobility in their faces (but without pride), which the consciousness of a great enterprise had set there. There was a gripe of the hand for their male friends, and a kiss for their wives and mothers; but now that it was settled that the boat should go, the women forbore to hang about them, or

melt those hearts which had such urgent need to be strong and unmelting. Scarcely a moment was now let slip. The life-boat was brought down to the harbour at the gallop, and the crew stepped in. High as the waves were, there was no difficulty in leaving port. With an upright oar for sail, they would have scudded fast before the wind; but speed was now their chief object, and with all the canvas set that the boat could bear, she flew out into the open amid three ringing cheers. They had not got thirty yards before we lost sight of them. The little *Saveall* was quite hidden by the great green mountains of the sea.

It was curious to mark what a change this absence and peril of its heroes—for they were such in truth—effected in Boddlecombe. All day long, notwithstanding the bitter wind, the women hung about the harbour or sought the cliff-top, with their babes at their breast, or bringing such work as they could into the open air. Even the field-labourers, so soon as they were free to do so, came down to watch for their absent brothers. Not a jest was anywhere heard. All the men’s talk was about the admirable qualities of the little *Saveall*, and of the gallant deeds which Boddlecombe sailors had of old effected. I found old Michael Stuart sitting under the shelter of a rock on the north headland, disinclined for speech on any subject; while his wife, who sat by his side, spoke never a word. She had lifted up her voice against her Willie’s departure, but she had not been heeded, and there was nothing more to be said—nothing remained but to watch and to pray.

“We have always had good parsons here,” said Michael, “though none better than this one; and the best oar as our life-boat ever had—though it was not the *Saveall* then—was a parson’s son. Richard Meade was the young feller’s name; and as strong and fine-made a lad he was as our Willie. Nothing daunted him on sea or shore. His father was very poor, not much richer than some of ourselves, and he could not afford to send him to college and such-like. He lived here—the boy did—all his days, until

he was a grown man, and not a soul in the place but liked Dare-devil Dick ; and when he went away at eighteen on board of some Plymouth ship bound for the other side of the world, as second mate, we were all sorry to lose him."

That morrow was one of the darkest days that Boddlecombe had ever known ; the *Saveall* had not returned, and the wind, which had in no degree abated, still continued contrary. A few biscuits, two bottles of water, and one of brandy, were all the provisions the men had taken with them. It was not usual to put food on board of life-boats, but then it was not usual to go out so far. Suppose they had missed the ship, and could not make head against the gale on their return, what would they do for food ? We seemed to see them toiling at their oars in vain, and growing weaker at every stroke ; their sails, we knew, would have been worse than useless. There was never much work going on in the little town, but on this day there seemed to be none. I found Michael and his wife sitting in the same spot they had occupied on the preceding evening ; to look at them you would have thought they had been there all night. There was not a sail in sight—not one : all ships near shore had put to sea, or sought the nearest haven, when the first landward gale had set in, and they did not now care to venture out in such a sea as was still running. "Still it was not such very dirty weather," said Michael ; but his old wife shook her head. She knew that no boat could return to Boddlecombe in the teeth of such a wind, and she knew that he knew it. The men were very silent, sweeping the horizon with their glasses. One of them offered his telescope to Michael, but the old fellow declined to take it. "Man, I couldna hold it," said he. His poor limbs were all of a tremble. The gallant crew of the *Saveall* had never been so long away from home.

But sad as it was to watch the anxiety of those who had fathers, husbands, sons, on board the life-boat, the clergyman was the man we pitied most. It was true his flesh-

and-blood were not in peril, though the men who were so were almost as dear to him, for he loved his people ; but it was under his advice, nay, at his earnest entreaty, that they had started on that dangerous errand, and it was plain he felt it bitterly. All day long he remained upon the cliff-top among his flock. He did not spare himself the sight of their distress, though it wounded him so keenly. And they on their part—even the women, who sat with their little ones under the lee of the watch-tower, and every now and then burst into uncontrollable grief—forbore to reproach him. They felt his heart was bleeding for them—at the worst he had but made a mistake, yet one which all his life, they knew right well, he would bitterly rue.

Even Willie's mother, perceiving him a far off among the crowd, only murmured : "Ah, but he should ha' let me keep my Willie !" And Michael, who was a just man, replied : "And yet parson would ha' taken his place himself ; yes, and would do it now for any one of them, no matter in what risk they stood."

"Yes," said his wife ; "but parson's sure of heaven, and some of them—though not our Willie, God bless him, for he's an angel whether he's dead or alive—is not so fit to die."

She was thinking, I suppose, of some social misdeeds which some of the crew might have committed—with which public scandal had been at one time busy—though it would never surely be whispered of again.

"I should think this must pay for all," said I, involuntarily. "To lose one's life in such a cause as this should take a man straight to heaven." I spoke my honest thought, and not only to comfort her. But the old woman gave a reproving glance ; it was evident the impulsive heterodoxy of Pall Mall was not acceptable to her. She was a genuine good and humble-hearted creature, and there were many like her at Boddlecombe. It was made plain that day that the minister who had 'a hundred a year and his meat' was no idler, any more than the clergyman, and that neither had worked in vain.

Night fell and morning dawned upon a sorrowful and almost despairing people. Nine men, and those of their best and bravest, were a great loss in such a town : they were connected by ties of blood and marriage with no small portion of the population, and they were known personally to every one in the place—even to ourselves. We were scheming, as everybody else who had anything to bestow was doing, as to what best could be done for those whom this calamity had rendered widows and orphans, before we went out on the cliff-top as usual that morning, we felt so certain that all was over with the gallant *Saveall*. And so felt everybody that we found there. The wind had not changed a point, though perhaps the sea was a trifle less violent. It was just forty-eight hours from the time that the life-boat had left the harbour, when a sudden shout was heard from the town.

"By Heaven, they've come!" cried the coastguard lieutenant, a very excellent fellow, whom severe illness had alone incapacitated from being amongst them ; he had always been hopeful about their "making some other port," and had done his best to keep up our spirits. But this was too sanguine a view to be taken. The shout was not repeated, and indeed, how the few people left in the town could have made themselves heard so far at first, is still a marvel to me. But presently we saw a man upon a pony galloping out towards us, followed by a crowd of boys, and having in his hand a piece of white paper."

"They're come!" reiterated the lieutenant joyfully. "I knew they'd come—never say die, men. It's a messenger to say they are come to port."

And so it proved. That blessed Boddlecombe telegraph had been of use at last, and brought us the glad tidings. Nor have I ever seen folks so happy, or half so grateful, though they had various ways of showing it. I had the exquisite pleasure of running down to the rock where old Michael and his wife were, as usual, sitting withdrawn from the rest of the crowd, to tell them that their Willie had touched land.

"God be praised for all His mercies," cried the old man. But his wife covered her face with her hands, and thanked Him in silence.

The *Saveall*, fast as she flew before the wind, had not come up with the distressed vessel until she was nearly twenty miles from land, and found her in the saddest plight. She was a large passenger ship, bound for the far west. Three boats full of people had been launched in safety, but the fourth had been stove in alongside, and all that were in her had gone to the bottom before the eyes of the rest. This had so terrified the women, that they had refused to leave the ship ; and, indeed, in such a sea it was most hazardous to get them and the children over the side. The captain was still on board. He had been urged to save himself with the others, but, while wishing them God-speed to land, and giving them his best advice at parting, he had announced his determination to stick to the ship. "It shall never be said that I left women and children to go down," he said ; "it is no use for you to stay, men, but I am the captain."

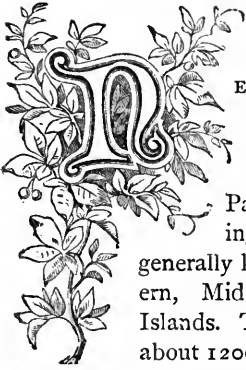
Some male passengers, husbands and fathers, also remained with their people, and when the life-boat came up with the vessel, these were seen on deck, sheltering the women and children as well as they could, and trying to comfort them. They were all drenched to the skin, but fortunately, thanks to the captain's care, had no lack of food, and had even some to spare ; which was well indeed, for our men were in sore need of it, and, without it, could certainly never have reached land. So that the captain of the ship did save his passengers' lives by standing by them. They had scarcely got all on board the *Saveall*, which was a difficult and tedious matter to effect, when the wreck went down.

Then all that night, and all next day, and far into the second night, they toiled against wind and sea, and at last made the land.

The *Saveall* was sent round by steamer a day or two after, but the crew arrived at Boddlecombe, by road, late that afternoon.

You may imagine how we welcomed them.

NEW ZEALAND.



EW ZEALAND, as most of our readers perhaps are aware, is a colony in the South Pacific Ocean, consisting of three islands, generally known as the Northern, Middle, and Stewart's Islands. The islands are situate about 1200 miles off New South Wales, between the 34th and 47th degrees of south latitude, and the 166th and 178th degrees of east longitude. Portions of them were explored by Tasman, under the direction of the Dutch East India Company, in 1642, and visited at various times during the 18th century, and in 1777 by Captain Cook. The first settlement of Europeans was made in 1814, but no colonization took place until 1839. In 1841 New Zealand was, by letters-patent, erected into a separate colony distinct from New South Wales. The entire area is stated at 106,260 square miles, or 68,000,000 acres (being a little smaller than Great Britain and Ireland), of which two-thirds are fitted for agriculture and grazing. The North Island comprises about 44,800 square miles; Middle Island, 60,700; and Stewart's Island, only 760 square miles, with but 161 inhabitants in 1874.

The colony was originally divided into nine provinces, each governed by a Provincial Council, with an elected Superintendent; but the system of provinces was abolished a few years ago, and counties, as in the mother country, substituted.

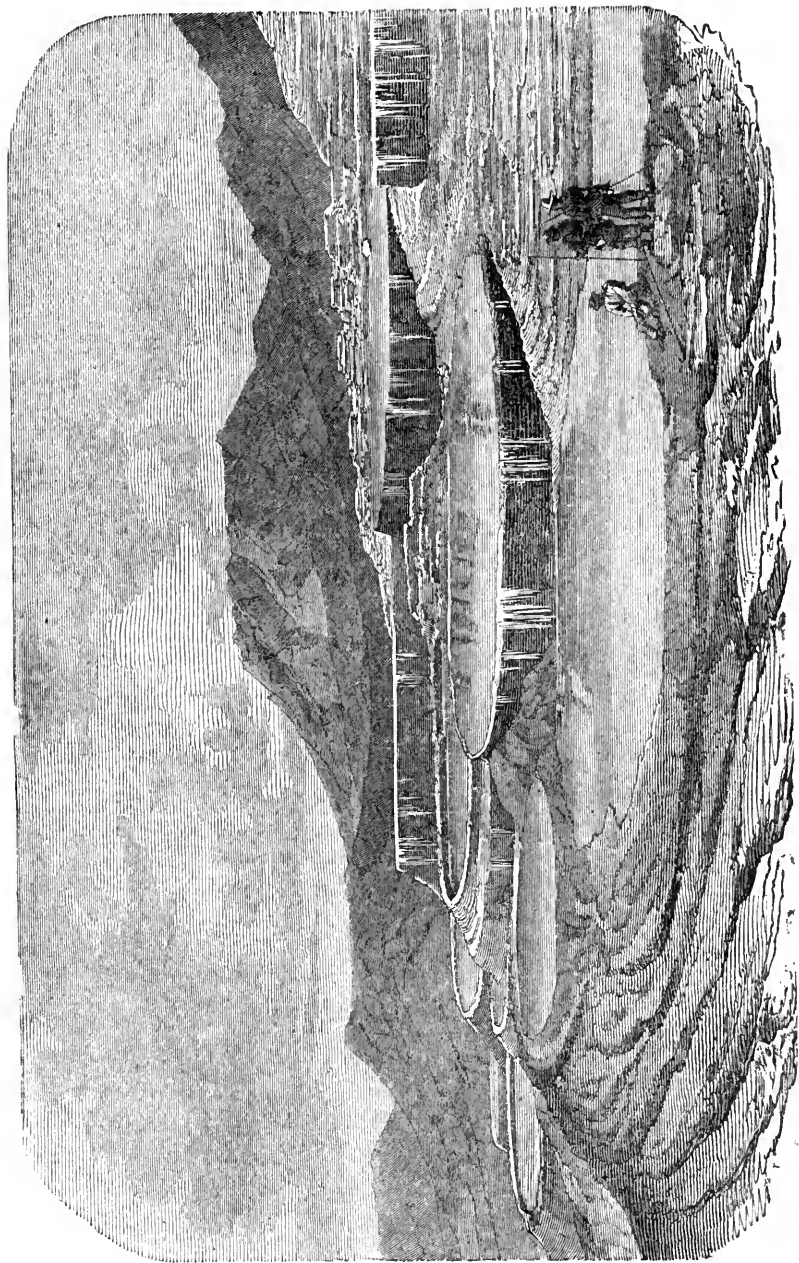
The population of New Zealand in March, 1878, was ascertained to be 414,412. The native population (Maories), in 1874, was estimated at 42,918 in addition, chiefly in the Northern Island. In 1840 a treaty was concluded at Waitangi with the native chiefs, whereby the sovereignty of the islands was ceded to Great Britain, while

the chiefs were guaranteed the possession of their land and forests, so long as they desired to retain them; the right of pre-emption was, however, reserved to the Crown, if they wished to alienate any portion. Thus New Zealand became a regular colony, and the seat of government was fixed at Auckland, but was removed to Wellington in 1865.

New Zealand in many parts is very mountainous; a mountain chain traverses the west side of the South Island, culminating in Mount Cook, 13,200 feet in height. The climate is equable, pleasant, and salubrious: admirably adapted for raising every fruit, flower, and edible that flourishes in Great Britain. The scenery in most parts is very beautiful. In the North Island there are ranges of hills almost Alpine in their character; and everywhere the country is fertile. Amongst the productions most peculiar to New Zealand are the Kauri pine (found only at the northern extremity of the islands), much valued for ship-building, from its lightness and elasticity, the resin of this tree forming also one of its most valuable exports, Kauri gum; and the native flax, considerable quantities of which are transmitted to the United Kingdom for the manufacture of ropes. Wool is largely produced, forming, next to gold, by far the largest item in the exports. The mineral riches of the colony promise abundant returns when they have been more fully explored. Gold has been discovered in many districts, and a rich iron-ore, in the form of iron-sand, has been found in Taranaki. Coal is widely distributed, and copper is met with in several localities.

The following account of a journey into the interior, though devoid of any sensational features, will be interesting as affording a good idea of the character of the country:—

"We had just begun the ascent of the



HOT WELLS, NEW ZEALAND.

Pakono range of hills, or, as it is very appropriately called, the 'Razor-back Hills,' and came upon a fine belt of timber, with some good English grass and clover. We drove off the road, crushing through the fern and zitree, just as the sun dipped and the moon rose in all its splendour. We chose a magnificent gum tree for our bivouac, whose two huge roots spread out three or four feet above the level of the soil, and eight or ten feet in length, forming a famous receptacle for saddles and baggage as well as a sleeping place for three of our party. The horses were quickly unharnessed, watered, fed with corn, and then tethered for a quiet grazing.

Next morning began business in earnest; a good substantial breakfast—coffee, meat, and sardines—at daybreak; horses fed, harnessed, and watered, camp struck, wagon loaded, fire put out, and on the road again. But oh, the rain, the driving smashing rain! Over hill, over dale, the descents often worse than the ascents; our horse, though a thorough good one, unequal to the task. Each hill grew more abrupt and appalling, until about noon we had conquered the 'Razor-back,' and trotted bravely through the settlement at its foot.

Our road now is very dangerous, a mere ledge in the side of high ridges, and sheer down to the Waikato River, some thirty feet below; said river the quickest current I ever saw, and nearly a mile in width. A few miles from this and we came to the low banks, and here we saw the effects of the heavy rains; great patches of ground flooded, huts and wharves with furniture floating in them, and people roughly and universally camping on the higher ground.

We reached a grassy eminence, and there tethered and fed our horses, keenly watched by a Maori in moleskin trousers, with large greenstone earrings, whose talk was as unintelligible to me as the grunts of the New Zealand wild pig.

We are off the road now, only a beaten track, or, more properly described, only a doubly ploughed track, with tons of clay and bushes pitched on to it in irregular

heaps, leaving holes where the poor horses sometimes had to roll on their sides to extricate themselves, and this in the rain, and with steep ascents. Of course, riding was out of the question. We were now on the top of one of the wildest ranges, a driving rain, night closing in, no shelter or wood for fire, and no provisions. We pushed on for another six miles, and found a deserted shed of corrugated iron, all nailed up, and we could get no entrance.

We pushed on again, although it needed all our pluck to do so, being quite done up and very wet. Then what a prospect! The soaked calico tent for which we were bound was down in a deep gorge or gully, but we happily found a man who showed us a way down to it, nearly a quarter of a mile descent. This is a very wild place, with scarcely an inch of level ground; but the tent is well tightened, and has a good trench dug round to carry off the water; and now we are the merriest party that ever smoked a pipe in a tent. The great blazing fire in the earth fireplace outside shed its warmth even here; and now the rain is pouring we close the tent, lie down and sleep, and are soon lost to all outside influences.

Next morning is fine, and the sun inclined to shine. After a splendid bath in the river, we had a good brisk walk. We notice a good deal of short Dutch clover as well as English grass, and there are many bushes of sweetbriar and tall quick hedges. Now we see a stockman on his rough horse with two dogs, driving in some cattle. His whip had a handle only a foot long, but the thong is not less than nine feet, and as he swings it over his shoulder, it descends a terrible blow on the refractory beast. Our road is now by the side of the Waikato River, and nearly level. We pass some scattered huts, a settlement or two, and in the afternoon came in sight of the township of Ngarawahia, pronounced *Narrowáhé*."

This beautiful land has doubtless a fine future before it. Of some hot wells which are to be found in the Middle Island, we give a very graphic illustration.



A SWIMMING EXPLOIT.

SWIMMING feat was performed, some years ago, by a native Sandwich woman in peril, which surpasses all other achievements of the kind on record. When about midway between the outmost points of Hawaii and Kahoolawe, or thirty miles from land on either side, a small island vessel, poorly managed, and leaky (as they generally are), suddenly shifted cargo in a strong wind, plunged bows under, and went down, there being on board between thirty and forty persons, and a part of them in the cabin. This was just after dinner on Sunday. The natives that happened to be on deck were at once all together in the waves, with no means of escape but their skill in swimming. A Christian man, by the name of Mauae, who had conducted morning worship and a sabbath service with the people in the forenoon, now called them round him in the water, and implored help from God for all. Then, as a strong current was setting to the north, making it impossible for them to get to Hawaii, whither they were bound, they all made in different ways for Maui and Kahoolawe.

The captain of the schooner, a foreigner, being unable to swim, was put by his Hawaiian wife on an oar, and the two struck out together for the distant shore; but on Monday morning, having survived the first night, the captain died; and in the afternoon of the same day his wife landed on Kahoolawe. A floating hatchway from the wreck gave a chance for life to a strong young man and his brother; but the latter perished before the daylight of Monday, while the elder reached the island in safety by eight or nine o'clock. A feeble boy, without any support, swam the same distance of nearly thirty miles, and arrived safe at land before any of the others. Mauae and his wife had each secured a covered bucket for a buoy, and three young men kept them company till

evening; but all disappeared, one after another, during the night, either by exhaustion, or getting bewildered and turning another way, or by becoming the prey of sharks.

Monday morning the faithful pair were found alone; and the wife's bucket coming to pieces, she swam without anything till afternoon, when Mauae became too weak to go on. The wife stopped and lomilomied him (a kind of shampooing common here), so that he was able to swim again until Kahoolawe was in full view. Soon, however, Mauae grew so weary that he could not even hold to the bucket, and his faithful wife, taking it from him, bade him cling to the long hair of her head, while she still hopefully held on, gradually nearing the shore! Her husband's hands, however, soon slipped from her hair, too weak to keep their hold, and she tried in vain to rouse him to further effort. She endeavoured, according to the native expression, to *hoolana kona manao*, to make his hope swim, to inspire him with confidence by pointing to the land, and telling him to pray to Jesus; but he could only utter a few broken petitions. Putting his arms, therefore, around her own neck, she held them fast on her bosom with one hand, and still swam vigorously with the other until near night-fall, when herself and her now lifeless burden were within a quarter of a mile from the shore. She had now to contend with the raging surf; and finding the body of her husband, which she had borne so long, stone-dead, she reluctantly cast it off, and shortly after reached the land.

But there she was hardly better off than at sea; for long exposure to the brine had so blinded her eyes that it was some time before she could see; her strength was too much spent to travel, and the spot on which she landed was barren lava on the side of the island opposite to any settlement.

Food and water she must find or die. Providentially she obtained the latter in a rain that had recently fallen, and that was standing for her in the cups of the rocks. Monday night, Tuesday, Wednesday, and Thursday came without relief, while she crept on gradually as she could toward the inhabited parts of the island. At last, on Friday morning, when her *manaolana*, her swimming hope, that had held its head so long above the waves, was fast sinking with her failing strength, by a gracious providence she discovered a water-melon vine in fruit. Eating one "her eyes were enlightened," like Jonathan's by the honey; soon after she was found by a party of fishermen, by them cared for, and conducted to their village, and the next day transported by canoe to Lahaina, whence the foundered schooner had sailed just one week before.

The Pacific Islanders, both men and women, are expert swimmers and divers. When approaching Penrhyn (says the Rev. Mr. Gill) in the *John Williams*, I have with wonder seen a number of them rise to the waist out of the water, as though possessed of webbed feet.

A small craft was one day launched at Mangaia. Two natural ropes of immense length, composed of strong vines knotted together, were employed to drag her over the reef; one was pulled by women, the other by men. The islanders accompanied the vessel out to sea until she was clear of the reef, swimming with their feet and pulling the ropes with their hands.

A schooner was lost a few years since in a terrific cyclone off Mangaia. The event took place about two p.m.; on the following morning, at nine a.m., a brother and sister—the survivors of a party of thirteen—swam ashore. They had been swimming in a fearful sea for about nineteen hours. The brother was far gone; but the sister

was quite fresh, and walked up to the mission-house and related the sad particulars of the wreck. In this case, however, the survivors were aided by a portion of the wreck. Next day a native of the Kingsmill Group, from the same vessel, was flung upon the coral and killed, while swimming ashore at a very bad part of the island. The body was warm when I saw it. The poor fellow had no extraneous help save a bunch of cocoa-nuts under each arm, and must have been in the water for about forty hours.

In the Pacific it is usual for a native sailor, when he has determined to run away from his ship, to provide himself with two bunches (a bunch invariably consists of four nuts) of old dry cocoa-nuts as floats, one for each armpit. If he can only see land in the moonlight, he will noiselessly steal down the ship's side and strike out for the distant shore, which he rarely fails to reach. If overtaken by hunger, he will husk a couple of nuts with his teeth, eat the contents, and then strike out with renewed vigour.

The most remarkable swimming feat I have known occurred in Torres Straits. A native of Two Brothers, with some others, was put in irons for diving for *avicula* without a licence. Horrified at this new experience, and dreading the worst, the ignorant savage dived into the sea, and was no more seen. It seems that, thinking his life in danger, he put forth his utmost strength, and, favoured by the tide, dived on and on, until the muscles of the hand contracted, and the irons fell off. He then rose to the surface unnoticed, and proceeded leisurely to Turtle Island. He rested a day or two, and then swam on to Cap Island—a mere rock. After a brief rest there he swam on to his home at Two Brothers (Kepara), in all a distance of twelve miles.



BALMORAL CASTLE.

BALMORAL CASTLE stands in the parish of Crathie, on the right bank of the Dee, on a natural platform at the foot of a hill called Craig-Gowan, about fifty-two miles from Aberdeen. The new mansion was commenced in 1853, after various alterations and additions had been made to the old house which stood to the south of the present building.

The general style is the Scottish Baronial, modified, of course, with a view to meet modern wants and convenience, and exhibiting, therefore, more of the character of a modern mansion than of an ancient stronghold. It was designed by Mr. William Smith, architect, Aberdeen, and executed under his superintendence, according to orders received from time to time from the Prince, by whom many important additions and alterations were introduced during the progress of the building.

The estate on which Balmoral Castle has been built is a capital specimen of the mountain scenery of the Grampian range. There are indeed few localities which display so well the characteristic features of the Highland landscape as the upper valley of the Dee. Situated in the midst of the Grampians, far from the usual routes of the traveller, it enjoyed until lately almost entire seclusion, interrupted only by the annual visits of the sportsman and the naturalist.

From the village of Ballater to Castleton-of-Braemar, a distance of eighteen miles, and embracing the parishes of Glenmuick, Crathie, and Braemar, the valley is narrow, in many cases not exceeding half a mile in breadth, and sometimes barely affording room for the road along the banks of the Dee, which traverses its whole length in a deep and rapid stream.

The mountains bounding the valley rise in abrupt and successive ridges, culminating on the south side in the steep and rugged Lochnagar, and on the north in the still loftier peaks of Ben-a-bourd, Ben-A'an, and Ben Macdhui. Not only the banks of the river, but many of the lower hill-sides, are covered with the weeping birch, the mountain ash, the trembling poplar, and the dark pine or Scotch fir, growing in all the wild luxuriance of nature.

The arable land is confined to a narrow strip of light sandy soil on the immediate banks of the Dee and its tributaries; while the upper parts of the mountains, and the ridges and narrow glens between them, are covered with a moory or mossy soil forming during the summer months the pasture-grounds of large herds of red deer.

Owing to its position in a deep and narrow valley, under the shadow of the highest mountains in the kingdom, the winters are severe, the thermometer not unfrequently falling as low as twelve degrees below zero; while the summers are generally warmer than in the low country, where the heat is tempered by neighbourhood to the sea.

Balmoral is situated in the centre of this district, on the northern slope of Lochnagar and in the parish of Crathie. It is bounded on the north by the Dee, on the south by Birkhall, on the east by Abergeldie, and on the west by the forest of Ballochbuie.

It formed part of the ancient lordship of Braemar and Strathdee, which in 1564 was conferred by Queen Mary on the Earl of Moray, in a charter which is still extant; and specifies the rent-charge payable to the Earl. Early in the following century Balmoral passed into the hands of the Farquharsons of Invery, a branch of the Farquharsons of Invercauld. In this family it remained till 1798, when it was purchased by the Earl of Fife for £7,020.

In 1836 the Right Honourable Sir Robert Gordon leased the property for a period of thirty-eight years, with the view of converting it into a deer-forest.

Considerable sums were expended by him on judicious improvements, including the erection of a handsome villa on the bank of the river, and near the site of the present Castle. At his death, in 1847, the remainder of the lease was purchased by the Prince Consort, from the late Earl of Aberdeen.

In 1848 the royal family paid their first visit to Balmoral, and in 1852 the fee-simple of the estate was acquired from the Fife trustees. Its area is about 10,000 imperial acres, of which, at the date of the purchase, only 200 were arable, and 800 under natural wood, chiefly birch or Scotch fir; while the remaining 9,000 consisted of wide tracts of moss and moorland, interspersed with high, rocky ridges, bounded on the south by the lofty precipices of Lochnagar.

While Balmoral, we believe, fully realized the expectations of his Royal Highness, who admired the picturesque beauty of the scenery, and enjoyed its dry and bracing atmosphere, he soon discovered that it was too limited in extent to afford full scope for the sport of deer-stalking, which was one of the main objects of a Highland residence. The adjoining estate of Birkhall was therefore purchased in 1849 for the Prince of Wales. This added 6,000 imperial acres, of which 400 are arable and 400 under wood, while the remaining 5,200 acres consist of moorlands similar in character to those on Balmoral. The property was now bounded on the south by the Muick. In the same year the intermediate estate of Abergeldie was obtained on a lease of forty years, containing 14,000 imperial acres, of which 500 are arable and 1,200 under wood, while upwards of 12,000 consists of moss and moorland.

The three estates, thus united, form a triangle, with an area of upwards of 30,000 acres, bounded on the north by the river Dee, on the south by the water of Muick and the Lochs Muick and Dhu-loch, and

on the west by Lochnagar and the succession of rocky ridges extending down to the Dee. The whole is known as the Balmoral Deer Forest.

In extent, as compared with the Athole Black Mount and Mar Forests, it is far inferior; yet, from the quiet of its extensive woods, and the excellence of its pasture, it has become a favourite haunt of the stag, and numerous herds are to be found constantly within its boundary, affording sport, in proportion to its extent, equal to any of the larger forests.

No sooner had the Prince Consort obtained possession of these estates, than measures were taken to increase the comfort and elevate the condition of the tenants.

The population of the district are thinly scattered, and in several cases they are so isolated and distant from the parish school that it was in many cases useless to the children. To supply this defect commodious school-buildings have been erected, teachers have been appointed with liberal salaries, and the means of a religious and practical education have been brought within the reach of every family. A library, too, was established at Balmoral, the gift of the Prince, consisting of upwards of 500 volumes, selected by himself. All the cottagers on the estate have access to it, and it is very generally and gratefully used.

The agriculture of a mountain district is of course of a very simple character. The chief lessons, indeed, to be learned here are those regarding the relation of landlord and tenant. The increase of the game (chiefly red deer) within the district soon led to considerable destruction of crops: substantial fences have accordingly been erected to prevent this for the future. New cottages have been built where needed, on simpler plans than have been considered necessary in the Isle of Wight. Homesteads have been built where the extent of the holding has rendered them desirable.

The private grounds which surround the Castle extend along the valley of the Dee for nearly a mile, and contain upwards of

120 acres. They slope from the base of the beautifully wooded hill of Craigowan on the south, by a series of natural terraces to the river on the north, varying in breadth from 100 to 400 yards. These terraces are thickly studded with the weeping birch, mountain ash, trembling poplar, and other indigenous trees. Betwixt the terraces vistas have been opened, affording distant views of the river, the neighbouring mountains, and other picturesque objects. Artificial mounds have been raised at various points, and planted with hardy shrubs and ornamental trees. Fountains, flower-gardens, ponds have not been forgotten. All these works have been executed from plans by His Royal Highness, and will long remain a monument of his good taste.

From various causes the estates of which the Prince came into possession had for many years been greatly neglected. The dwellings of the tenants, the farm-offices and fences, had fallen into decay. The cottages, or rather hovels, of the labourer and poor were wretched. No regular system of cropping was followed. Modern improvements in agriculture were not known, or at least they were disregarded. If the rent was regularly paid, very wide discretionary powers were allowed the tenant as to the rotation of cropping he followed. The consequence was that weeds luxuriated, the thistle and dock struggling for supremacy over the scanty crops of oats and bere; and as might have been expected, the return was unprofitable. The whole of the arable land upon the three estates of Balmoral, Abergeldie, and Birkhall, did not exceed 1100 acres. This was divided into small farms or crofts rarely exceeding twenty-five acres, the majority not being of half that extent, while the number of tenants was over sixty. A croft of this size, two or three half-starved cows, a Highland pony, or it might be two, a few score of sheep, all turned out to shift for themselves on the hills, constituted the wealth of most of the tenants.

To apply a remedy to evils so obvious may appear a very simple process; but only

those acquainted with the character and disposition of the people, and with the management of Highland property, can appreciate the difficulty of it. To get a Highlander to change a custom handed down to him from his forefathers, or to adopt an improvement on it, requires great patience. His feelings, and even prejudices too, however mistaken, are often of a nature we cannot but respect. The love of country is a sentiment amounting to a passion in the heart of a Highlander. Other lands may be fairer, but the mountains and streams of his native strath are ever associated with his earliest and dearest recollections. To be driven from them is looked upon as a calamity, an injury never to be forgiven; and the landlord is branded as an oppressor who ventures to adopt such a practice. Mr. M'Kay, in his excellent remarks upon the management of Highland property, makes the following observations upon this subject:—"Throughout the Highlands the relation between landlord and tenant has hitherto been different in many respects from what it is in other parts of the kingdom. Here the relation comprehends more than is included in being simply parties to a business transaction, in which nothing further is looked for on either side beyond the strict fulfilment of a stipulated contract. As in ancient times the Highland chieftain was looked up to as the leader, protector, and father of his faithful retainers, so to this day, and in these peaceful times, do the occupiers of land in the Highlands respect and honour their landlords. The tenantry here have descended in direct lineal succession, in the same possession, even to as great an extent as the proprietary, and the principles held by their fathers, their attachment and adherence to their landlords, have been faithfully handed down and imbibed by their posterity. And who would not desire to foster and preserve this happy relic of feudal times, and save it from the rude grasp of the prevailing mammon-worshipping, time-serving spirit of the age? How much more honourable and gratifying is it

for a proprietor thus to live in the affections of his tenantry, to be loved and honoured while he lives, and to be truly mourned over when he dies, than, living or dying, to be cared for by none of them?"

Sentiments of a similar kind were entertained by the Prince Consort. No views of self-interest entered into his calculations. He loved the people, he admired their character, and he respected their prejudices as the antique vestiges of other days. His Royal Highness believed that if they were ignorant, it was because the means of education were deficient; if they were indolent, it was because they had little field for encouragement to exert themselves; if sometimes slovenly in their habits, it was because from poverty they were compelled to live in comfortless mud hovels. To increase the comforts of his tenants, to elevate their moral and social condition, were objects steadily kept in view from the time the Prince became a proprietor of Highland property; and they were pursued with unabated zeal till the end of his life.

Anxious as the Prince was to remedy the

state of matters we have indicated, he was well aware the cure must be the work of time. It has been already stated that school-houses were erected and teachers appointed for the education of the young; and that, to give a taste for reading, and increase still more the means of information, an excellent library, the joint gift of her Majesty the Queen and the Prince, was established at Balmoral, and thrown open not only to tenants and servants, but to all in the neighbourhood.

To describe the numerous improvements effected by the liberality of his Royal Highness upon the different estates would prove tedious by repetition. It will be sufficient to state generally, that comfortable cottages have replaced the former miserable dwellings; that farm offices, according to the size of the farms, have been erected; that money has been advanced for the draining, trenching, and improvement of waste land; that new roads have been opened up and old ones repaired; and that fences have been renewed, and upwards of 1000 acres of unreclaimable land planted.

MARK TWAIN AT ST. GEORGE'S.

MARK TWAIN once visited Bermuda, and gives his impressions of the place in his well-known whimsical style:—

"The island is not large.

Somewhere in the interior ahead of us a man had a very slow horse. I suggested that we had better go by him; but the driver said that the man had but a little way to go. I waited to see, wondering how he could know. Presently the man did turn down another road. I asked, 'How did you know he would?'

"'Because I knew the man and where he lived.'

"I asked him satirically, if he knew everybody in the island; he answered very

simply that he did. This gives a body's mind a good substantial grip on the dimensions of the place.

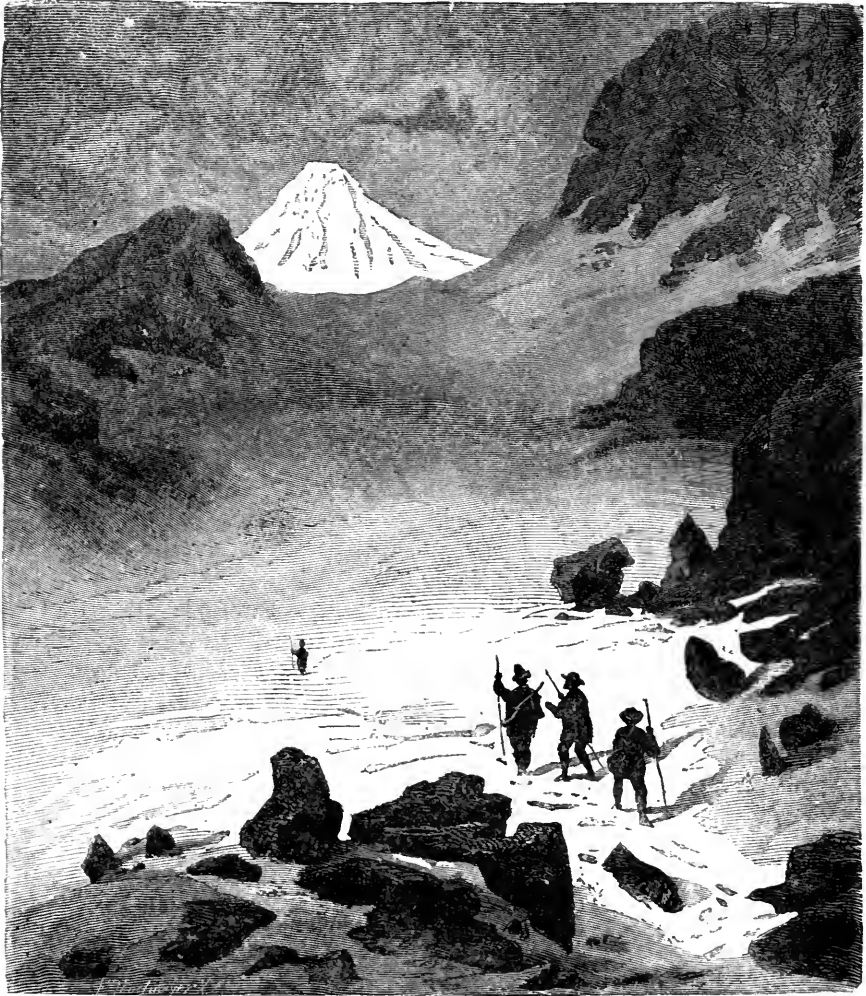
"At the principal hotel in St. George's a young girl with a sweet, serious face, said we could not be furnished with dinner, since we had not been expected, and no preparation had been made. Yet it was still an hour before dinner-time. We argued, she yielded not; we supplicated, she was serene. The hotel had not been expecting an inundation of two people, so it seemed that we should have to go home dinnerless. I said we were not very hungry—a fish would do. My little maid answered that it was not the market-day for fish. Things began to look

serious; but presently the boarder who sustained the hotel came in, and when the case was laid before him he was cheerfully willing to divide. So we had much pleasant chat at table about St. George's chief industry, the repairing of damaged ships; and in between we had a soup that had something in it that seemed to taste like the hereafter, but it proved to be only pepper of a particularly vivacious kind. And we had an iron-clad chicken that was very deliciously cooked, but not in the right way. Baking was not the thing to convince his sort. He ought to have been put through a quartz mill until the 'tuck' was taken out of him, and then boiled till we came again. We got a good deal of sport out of him, but not enough sustenance to leave the victory on our side. No matter; we had potatoes and a pie and a sociable good time. Then a ramble through the town, which is a quaint one, with interesting crooked streets and narrow, crooked lanes, and here and there a grain of dust. Here, as in Hamilton, the dwellings had venetian blinds of a very sensible pattern. They were not double shutters, hinged at the sides, but a single broad shutter, hinged at the top; you push it outward from the bottom, and fasten it at any angle required by the sun or desired by yourself."

The days of romance, it seems, are not yet over, for Mark Twain fell in for "a romance of tight boots":—

"We prowled on several hours, sometimes by the seaside, sometimes inland, and finally managed to get lost, which is a feat that requires talent in Bermuda. I had on new shoes. They were No. 7's when I started, but were not more than 5's now, and still diminishing. I walked two hours in those shoes after that, before we reached home. Doubtless I

could have the reader's sympathy for the asking. Many people have never had the headache or the toothache, and I am one of those myself; but everybody has worn tight shoes for two or three hours, and known the luxury of taking them off in a retired place and seeing his feet swell up and obscure the firmament. Few of us will ever forget the exquisite hour we were married. Once when I was a callow, bashful cub, I took a plain, unsentimental country girl to a comedy one night. I had known her a day; she seemed divine; I wore my new boots. At the end of the first half-hour she said, 'Why do you fidget so with your feet?' I said, 'Did I?'—then I put my attention there and kept still. At the end of another half-hour she said, 'Why do you say, "Yes, oh, yes!" and "Ha, ha, oh, certainly! very true!" to everything I say, when half the time those are entirely irrelevant answers?' I blushed, and explained that I had been a little absent-minded. At the end of another half-hour she said, 'Please, why do you grin so steadfastly at vacancy, and yet look so sad?' I explained that I always did that when I was reflecting. An hour passed, and then she turned and contemplated me with her earnest eyes and said, 'Why do you cry all the time?' I explained that very funny comedies always made me cry. At last human nature surrendered, and I secretly slipped my boots off. This was a mistake. I was not able to get them on any more. It was a rainy night; there were no omnibuses going our way; and as I walked home, burning up with shame, with the girl on one arm and my boots under the other, I was an object worthy of some compassion—especially in those moments of martyrdom when I had to pass through the glare that fell upon the pavement from street lamps."



SCENE IN LAPLAND.

AMONGST THE LAPPS.

MOST of us know the mystery with which our young imaginations invested the name of some distant town or mountain, when after school drudgery it became graven upon our refractory memories. "It was with such fugitive associations of the past that, in company with some friends," says the Rev. W. Bramley-Moore, M.A., "I commenced the ascent of

that mountain plateau in the interior of Norway called the Dovre-Fjeld.

The top of a fjeld often runs for many miles at almost a dead level; and, in this respect, forms a great contrast to the rest of Norway, which is proverbially hilly. Jerkin, the station at the foot of Sneehætten, and at the crest of the upland steppe, is an oasis for the traveller, whether sportsman, angler, naturalist, or botanist. At this place

we fell in with a party from Scotland ; and, after the first diffidence had been overcome we agreed to alter our programme, and make an excursion to the Lapps. This would cost us three days' travelling, as none could be found nearer than the borders of Sweden. What romance was infused into the name 'Laplander,' and how many a picture over which one had paused in boyhood was again imaged in the photographs of memory !

The road from Jerkin to the Glommen was very dreary, but we were much struck with the first appearance of a mountain covered with Arctic lichen. It was a high and conical hill, without a tree or shrub of any kind ; and the moss looked chill and icy, more so as its white beauty glistened in the rays of the setting sun.

On the evening of the second day, we reached the town of Røraas, remarkable for its being the highest parish in Norway—being 3,000 feet above the level of the sea, and the only one south of the Arctic circle where corn cannot be cultivated. Its large population, which exceeds 3,000, is due to the copper mines in the neighbourhood, which from their purity rank among the richest in Europe. They were discovered, in 1644, by a peasant of the district, Hans Olsen Aasen, by an accident like that which revealed the silver mines of Potosi, in Bolivia. Aasen had gone out to shoot reindeer ; and the frightened herd, in making their escape, tore up some of the moss on the side of the mountain ; and the fortunate huntsman was astonished to find veins of shining copper disclosed beneath. Owing to the destruction of wood in the neighbourhood for the smelting works, the country is now very barren, and the climate has gradually increased in severity.

After the usual difficulties in arranging conditions as to guides and horses, which beset travellers who can only advance in one way, and who will not recede without the attainment of their object, we effected the compromise between English stubbornness and Norwegian cupidity, through the intervention of a tall, sandy-haired citizen,

who united the traits of a canny Scotchman with those of a tall, lank Kentuckian. Our cavalcade started in the early morning, and we availed ourselves of a rough carriage road for several hours. This came to a termination about the middle of the day, when we unharnessed our horses, and, during our hour of refreshment, cast a coy fly upon the stream for some wayward trout. Our route now led us over high swampy moorlands, interspersed with patches of low birch, edging pools or bogs, with here or there a stunted or blasted fir, inspiring a chill feeling o'er this forlorn aspect of nature. We should not have been true to the weaknesses of travellers if we had not often asked how far it was to the Swedish frontier ; what the probability was of our finding Lapps ; whether they would have their reindeer ; with other inquiries, to relieve the monotony of our march. We travelled until seven p.m., when we saw, in the distance, a lake glistening in the waning sunshine, on the borders of which rumour had located an encampment.

Having reached a mountain *gaard* or farm on the water's edge, we behold an object which excites our curiosity. He is a quaint specimen of male humanity, under five feet in height ; his head is covered with a close-fitting cap made of reindeer skin, under which peers a disfigured sensual countenance. The deep-set eyes, converging to a point and slanting downwards, the flat snub nose, the broad ugly mouth stained with tobacco juice, stamped the characteristics of the Lappish type upon the dwarf. As regards his clothing, he was encased in reindeer skin, of which his jacket or smock, his gloves, his girdle holding his knife, his pantaloons, and his large shoes were made. The skin is worn with the hair outwards, and, from its peculiar texture, is an excellent protection against cold. Beware lest your imagination asks when those robes were last laid aside, or when the crystal wave of the lake invaded that human shrine. Our new acquaintance readily engaged to conduct us to the settlement. We forthwith straggled into the birch brake and juniper

bushes, over bogs and swamps, hollowing out, to guide each other by our shouts. The 'half-mile' (three and a half English), which was a very 'old' one, came, like all things else, to an end; when, from the scrub, we emerged suddenly upon two wigwams. Shouts of terror arose from the half-naked urchins who were playing about, and whom only the presence of the enemy was sufficient to rout.

The site of a Lapp tent is generally selected with much taste. It is pitched in a sheltered place, commanding an extensive view, in the neighbourhood of a birch wood, and near a river or a lake. The summer tent is not so elaborate as a winter's one, consisting of reindeer skin stretched over long conically-placed poles, with a circular opening at their converging point. In winter, the Lapp constructs a log hut, covered with birch bark and turf, also in the form of a truncated cone.

We hastened into the hut, crawling in through a very 'gate of humility,' to wit, an opening about three feet high, covered over with a flap of reindeer skin. Being informed, however, that the deer were about to be milked, we deferred our minute survey, and proceeded to the inclosure, where the herd had been collected by the help of the faithful dogs. There were about 250 of these beautiful deer, full of frolicsome life and rubbing against one another with skittish playfulness. They had sleek skins, of a grayish brown colour, and many of the males had magnificent branching antlers, coated with the softest velvet. A kind of lasso was thrown over the horns of a female, and the process of milking began. A Lappish woman soon presented us with some milk in a wooden bowl for us to taste, but it was so much richer than our cream that one sip was quite sufficient. It is used as an article of daily food, either liquid or thickened with meal (forming a sort of porridge or *gröd*), or in the form of butter and cheese. The presence of the reindeer in these regions is due to one of those kindly decrees of a gracious Creator, whose resources are infinite, and 'whose tender

mercies are over all His works.' It is an example of nature's *multum in parvo*. What the polar bear is to the most northerly outcast, the agave to the Mexican, the palm-tree to the Orinoco Indian—such is the reindeer to the Laplander, supplying him with almost every necessary for the support of life. Its flesh is prepared in different ways: and, when cut into slices and dried, is used instead of bread—a rare luxury to the Lapp. Its skin furnishes the necessary articles of his clothing, the bed he lies on, and the covering of his tent. The sinews are chewed with the teeth, and form thread and cord; of its horns are made spoons, drinking cups, and other useful articles; its milk is made into butter and cheese, affording marketable articles; and last, but not least, it supplies means of locomotion to its nomade master, in the reindeer sledge, or '*pulk*.' Moreover it supports itself, living on the greenish yellow lichen called reindeer moss (*Cladonia rangiferina*) which covers those popularly mis-called 'Scandinavian mountains' in great abundance. Though the moss apparently looks dry and valueless, yet it is a most important and providential gift, as the means of supporting thousands of reindeer, both tame and wild, in these barren regions. In the midst of winter, the deer will remove the snow to a depth of four or five feet with their hoofs, or with their short lower palmated horns, in order to get at this particular lichen, without which, together with bracing air and perpetual snow, they cannot thrive, nor indeed live for any considerable time. Some of the rich Lapps in Finmarken have herds of 2,000, and occasionally of 4,000 animals. It is computed that the tame reindeer in the provinces of Nordland and Finmarken belonging to the Lapps amount to 28,000. They are exposed in winter to many dangers from the wolves and other beasts of prey.

After inspecting the herd, we returned to the wigwams. On our first entrance the smoke was so dense as to make our eyes ache, and it is owing to this cause that so many of the Lapps suffer from bleary eyes;

for it must find egress from the circular outlet as best it can, in defiance of wind or storm. The scene round that wood fire in the centre was curious. More than thirty persons were crowded together in that outlying hut, the representatives of nations widely differing in habits and feelings. Our English party consisted of three ladies and seven gentlemen; next came our Norwegian *skydscacls*, who looked down upon the Lapps with the hereditary contempt felt for a degraded and exotic race; and lastly our Lappish entertainers, behind whom divers children, guiltless of clothing, appeared and disappeared into miscellaneous piles of reindeer skins. Birch branches were cast on the fire, and threw a flickering glare on our various countenances. Tobacco was handed round, followed by 'schnapps,' and all good wishes were duly given to the '*Fremde Folk*' (strange people). They then favoured us with some songs and hymns, in a strain which, like the rural minstrelsy of the north, was nasal, lugubrious, and most unmelodious. They showed us their prayer-books, and informed us that they attended the Lutheran worship whenever they had an opportunity. They were familiar with the name of our Saviour, and with the mission of redemption which He came to accomplish; and to all our remarks on this subject they gave a hearty assent. Various articles made of reindeer horn, thread made of the chewed sinews, ornaments, books, and domestic articles, were handed round and inspected.

The Lapp is of a very hardy nature, and will go for thirty miles through swamp and over rock, quaff his milk, sleep in his wet clothes, and start again as brisk and active as at first. When overtaken by a snow-storm, he does not think it dangerous to allow himself to be 'snowed up,' and after the storm is over he coolly digs himself out

as if nothing particular had happened. Often does the Lapland woman become a mother in the midst of her wintry wanderings; but the child is put into a box made of hollowed wood, and covered with leather, called a 'stock,' which she slips on her back, and after a short repose pursues her journey without any evil consequences. This rough exposure, however, makes them prematurely aged, and, like the old crones of South Italy, intensely ugly. When falling sick in old age, they are, like the African bushmen, sometimes left on the road under a tree with some provisions; and it has occasionally happened that their remains have been found gnawed by the wild beasts, who had hastened their death.

We talked of spending the night here; but a couch of birch branches and skin, well stocked with the plagues which civilization extends but cannot extirpate, a wooden box as hard as the nether millstone for a pillow, served to turn the romance into a very dreary penance. A few of us, however, determined to venture. Our first care was to place the iron tripod on the fire, anxious to join in the Lapps' evening meal. It consisted of a thick porridge made of meal, milk, and salt, repulsive save to the hungry. We then turned our feet to the fire, and courted sleep under every disadvantage. The attempt on my part was hopeless, and I lay for three hours on my comfortless bedding; now raising myself up to contemplate the group of sleepers, now fretful under an icy draught, a shower of soot, or rain; now scarred with personal wounds. I realized that if the episode of a night in the Lapps' camp was a pleasant subject of relation, it was in the reality a hard-wrung and unromantic experience."





DESCENT OF A PRECIPICE.

WE dashed into the plaza of Managua, says the adventurous American traveller, Mr. Squier, with steaming steeds, and rode to the posoda. It was not nine o'clock, yet we had ridden twenty-six miles. Here we breakfasted. At eleven, when we started for Masaya; the sky was clouded, but it did not rain, and we rode at a rapid pace over the intervening thirty-six miles. Again we paused on the *mal pais* of the volcano, and looked down upon its broad, desolate fields—doubly black and desolate under a lowering sky. Again we lingered in the noiseless streets of sweet, embowered Nindirí, born of the lake and mountain, and at four o'clock entered the suburbs of Masaya.

Half or three quarters of a mile from the plaza, we came to the edge of the immense sunken area, at the bottom of which is the lake. It is surrounded by precipitous cliffs, except upon the side of the volcano opposite the city, where the lava has flowed over, and made a gradual but rough and impassable slope to the water. The first stage of the descent is by a broad flight of steps, sunk in the solid rock, terminating in an area, fenced by a kind of balustrade, or parapet, of the same material. I looked over this, and below was a sheer precipice, from which I recoiled with a shudder. Here stands a little cross firmly fixed in the rock. The path now turns to the right, winding along the face of the declivity, here cut in the cliff, there built up with masonry, and beyond secured by timbers, fastened to the trees, many of which are of gigantic size, covered with vines, and twining their gnarled roots in every direction among the rocks. These rocks themselves are burned and blistered with heat, with vitrified surfaces of red and black, resembling the hardest enamel. Were it not for the verdure, which hides the awful

steeps and yawning depths, the path would prove a fearful road for people of weak heads and treacherous nerves, whose confidence in themselves would not be improved by the crosses which, fastened among the stones, or against the trees, point out the places of fatal catastrophes.

Our guide advised us to take off our boots before commencing the descent, and the women whom we met slowly toiling up in many places holding on by their hands, panted *quita sus botas!*—"take off your boots!" But we were more used to boots than they, and kept them on—not without subjecting ourselves to a suspicion of foolhardiness. Down, catching glimpses of the lake, apparently directly beneath us, and as distant as when we started—down, down—it was full fifteen or twenty minutes before we reached the bottom. Here were numerous places among the fallen rocks and the volcanic débris of the cliff, where the *aguadoras* (water carriers) filled their jars. I asked if the lake was deep. An *aguadora* replied that it was *insondable*, bottomless; and to give me practical evidence of its great depth, paddled ashore, and taking a large stone in each hand, went out not more than thirty feet, and then sank. She was gone so long that I began to grow nervous, lest some accident had befallen her in those unknown depths, but directly she popped up to the surface, almost in the very place where she had disappeared. She gasped a moment for breath, and then turning to me, exclaimed, "you see!"

The water is warm, but limpid, and, it is said, pure. When cooled, it is sweet and palatable. Considering that the lake is clearly of volcanic origin, with no outlet, and in close proximity to the volcano of the same name, this is a little remarkable. Most lakes of this character are more or less impregnated with saline materials.

The view of the lake, and the volcano rising on the opposite shore, from the place where we were seated, was singularly novel and beautiful. Above us towered a gigantic *cebia*, festooned with vines, amongst which a company of monkeys were scrambling, chattering and grimacing. Occasionally one would slip down the long rope-like tendrils of the vines, scold vigorously for a moment, and then, as if suddenly alarmed, scramble up again amongst the branches.

The cliffs which wall in the lake resemble the Palisades on the Hudson River, but are much higher, and destitute of the corresponding masses of debris at the base. The early Spanish chroniclers speak of them as a "thousand fathoms" high; later travellers have changed the fathoms to yards, but even that is probably an exaggeration. We had no means of determining the question, and would not have gone down again, after once regaining the upper earth, to have solved it a thousand times. The descent was a mere *bagatelle*, but the ascent one of those things which answer for a lifetime, and leave no desire for repetition. We reached the upper cross after a most wearisome scramble, only fit for monkeys to undertake, and sat down on the last flight of stone steps wholly exhausted, covered with perspiration, and our temples throbbing from the exertion, as if they would burst. The *aguadoras*, accustomed to it from infancy, seemed to suffer almost as much as ourselves, and as they passed the cross, signed in the usual manner in acknowledgment of their safe return.

All the water for domestic purposes is thus painfully brought up from the lake. During the *invierno* the rain is collected in tanks, or ponds, in the courts of the principal houses, for the use of the horses and cattle; but when this supply becomes exhausted, as it does towards the close of the dry season, the water for their use has also to be obtained here. An attempt had been made to cut a path for mules down the face of the cliff, but it had failed. About two leagues from Masaya, however, the people had met with better success,

and there is now a place where animals, with some difficulty, can reach the lake. There are a number of towns, besides Masaya, which obtain their water from the same source. These towns existed, and the same practice prevailed, before the Conquest, when the country was tenfold more populous than now. Water-carrying seems to have always been one of the principal institutions of this section of country, and as there are no streams, and never will be, it is likely to remain about the only enduring one, or until some enterprising American shall introduce a grand forcing pump, worked, perhaps, by volcanic power, for, having made the lightning a "common carrier," I do not see why volcanoes should not be made to earn their living.

Oviedo has described this lake as it was in 1529, and it will be seen that it has little changed since then. His estimate of the height of the cliffs surrounding it, about one thousand feet, is probably not far from the truth:—

"Another very remarkable lake is found in this province, although it cannot be compared in extent with *Cocibolca* (Nicaragua). The water is much better. It is called the lake of *Lendiri* (Nindiri or Masaya), and the principal cazique, who lives on its banks, bears the same name. This lake is about three leagues from Granada, but they are so long that we may safely call them four. I arrived there on St. James's day, July 25, 1529, and stopped with Diego Machuca. I was well received and hospitably entertained, and I went with him to visit this lake, which is a very extraordinary one. To reach it, we had to take a road, the descent of which was so rapid that it should be called rather a stairway than a road. Adjoining it we saw a round high mountain, on the summit of which is a great cavity, from which issues a flame as brilliant but stronger and more continuous than that of Etna, or Mount Gibel in Sicily. It is called the Volcano of Masaya. Towards the south, an arid and open slope extends to the shores of the lake; but on the other sides, the lake

is shut in by walls, which are very steep and difficult of descent. I beheld a path, as I was led along, the steepest and most dangerous that can be imagined; for it is necessary to descend from rock to rock, which appear to be of massive iron, and in some places absolutely perpendicular, where ladders of six or seven steps have to be placed, which is not the least dangerous part of the journey. The entire descent is covered with trees, and is more than one hundred and thirty fathoms before reaching the lake, which is very beautiful, and may be a league a half both in length and breadth. Machuca, and his cazique, who

is the most powerful one in the country, told me that there were, around the lake, more than twenty descents worse than this by which we had passed, and that the inhabitants of the villages around, numbering more than one hundred thousand Indians, came here for water. I must confess that, in making the descent, I repented more than once of my enterprise, but persisted, chiefly from shame of avowing my fears, and partly from the encouragement of my companions, and from beholding Indians loaded with an aroba and a half of water (nearly 40 lbs.) who ascended as tranquilly as though travelling on a plain."



SOCIETY IN JAVA.

THE absence of caste prejudice and religious fanaticism among the Javanese permits a considerable amount of sociability to arise between the two races, and the tone adopted by Europeans towards natives in Java is remarkably devoid of the arrogance and irritability by which in other countries it is too often characterized.

It is a very unusual thing for a white man to strike or even to menace a native, and acts of violence, when they do occur, are severely punished. While I was at Batavia (says Sir David Wedderburn), a foreign ship's captain, accustomed, perhaps, to less impartial laws, was undergoing a considerable term of imprisonment for laying violent hands upon a native car-driver.

Perhaps the good temper and urbanity characteristic of the Dutch in Java may be due partly to the general adaptation of their mode of life to the climate, in which respect they are more successful than our own countrymen, although they decline to

adopt the "punkah." They rise early, and until the meal known as "rijst-tafel," which takes place about midday, it is customary to appear in dresses adopted from the natives, and fashioned of the lightest and coolest materials in various colours. The dress of the ladies consists usually of a gaily coloured skirt and a white jacket, with slippered feet, and hair hanging loose or tied in a knot at the back of the head; and very becoming it is, as well as comfortable and cool. If the tight and multifarious garments of Europe have been assumed during the course of the morning, they are again discarded for the afternoon siesta. Until the cool of the evening no one is visible, and if an inexperienced stranger should attempt an afternoon visit, he will inevitably be received with the announcement, "Tidoer" (asleep). After sunset, refreshed with a bath, and dressed in correct European costume, but without hats, ladies and gentlemen sally forth, driving and walking, this being the fashionable time for paying visits, which may, however, be postponed until after dinner. Should there happen to be moonlight, a drive may be

taken even as late as midnight, or there might be an open-air concert in the grounds of a club, where the friends and families of the members are made welcome. The presence of children is a conspicuous feature at the opera and other evening entertainments, and is a natural result of the long repose during the heat of the day, indulged in by all, except a few whose businesses are such as to prevent them from choosing their own time for work and relaxation.

The natives, both of the upper and lower classes, are not nearly so bigoted as the Hindoos. The ladies go unveiled, and in their easy courtesy are very like the best-bred European women. Sir David Wedderburn was taken to the palace of the Sultan, where the ladies were assembled. Accustomed to the strict seclusion of Indian native society, he scarcely ventured to look at them, unveiled as they were, till a Dutch friend, after introducing him to the Sultan, with whom he shook hands, quietly remarked, "Now you must shake hands with the princesses—with all of them; they expect you to do so."

"Fresh from Indian durbars, where a mere allusion to the invisible occupants of the zenana would be a breach of decorum,

we could hardly trust our eyes and ears; but each young lady held out her hand with a pleasant smile, and we were afterwards seated between the Sultan and his blooming family of daughters. Attendants, literally crawling upon the floor, now approached the august presence, bringing tea, which was dispensed to us by the royal damsels, almost as if we had been in an English drawing-room at five o'clock in the afternoon. Unfortunately, our conversation was somewhat restricted, as the English idea could only reach the Javanese mind after undergoing four translations, either oral or mental, through the obliging Dutch captain, who interpreted in French and Malay. Meanwhile, the sound of music attracted our attention, and the Sultan courteously suggested that we might like to see a little more of his palace. We found that the music proceeded from a large open pavilion, where the Queen, or principal Sultana, was engaged in superintending a dancing lesson. The pupils were the daughters of court dignitaries and nobles, more than twenty in number, all very young, and evidently taking the greatest pains in the performance of their graceful position drill."

GERHARD DOUW, THE PAINTER.



ERHARD DOUW, the celebrated painter, whose paintings form some of the greatest ornaments of the Dutch school, was born at Leyden in 1613.

At the age of thirteen he became a disciple of Rembrandt; and in that famous school he continued for three years. From Rembrandt he learned the true principles of colouring, and obtained a complete knowledge of chiaroscuro; but to that knowledge he added a delicacy of pencil and a patience of working up his colours to the highest degree of finish.

His pictures are usually of a small size, with figures so exquisitely touched, so

transparent, so wonderfully delicate, as to excite astonishment as well as pleasure. He designed every object after nature, and with an exactness so singular that each object appears a perfect transcript of nature in respect to colour, freshness, and force. It is almost incredible what sums have been given, and are still given, for the pictures of Douw, both in his own and other countries. Some friends once visiting Douw, could not forbear admiring the exquisite minuteness of a picture which he was then painting, and in particular noticed a broom, at the same time expressing their surprise at the excessive labour bestowed on such an unimportant object, upon which Douw told them he

would spend three more days in working on that broom before he should consider it complete. The same author relates that

the wife of his great patron, M. Spiering, sat to Douw five days for the finishing of one of her hands. In consequence of his



GERHARD DOUW FROM A PORTRAIT PAINTED BY HIMSELF.

tedious style of painting few persons would sit to Douw for their portraits, and he therefore devoted his labours chiefly to

fancy, in which he could introduce objects of still life, and employ as much time on them as he pleased. He died in 1674.

A DAY IN NINEVEH.



NINEVEH for ages seemed blotted out of existence. The pyramid-looking mound of Nimroud is alluded to by Xenophon as a scene of crumbling ruins, when he and his ten thousand encamped there twenty-two centuries since. Lucian, who lived on the banks of the Euphrates in the second century, speaks of the great Assyrian city as at that time utterly destroyed, so that none could tell the spot it occupied. Its site was a waste four hundred years later, affording ample space for the movements of the two great armies of Heraclius and Rhazates. The elder Niebuhr passed over the spot without any perception of what it had been, even mistaking the ruins for ridges of hills. Mr. Rich, an enterprising traveller, some thirty years ago, began to examine certain of the mounds near Mosul, whence he found sufficient to indicate that there was something yet to be learnt respecting Nineveh, "that great city." But the discoveries he made were small; and a few fragments sent over to the British Museum, enclosed in a case three feet square, which also contained some from Babylon, were long afterwards all the relics which Europe possessed of the civilization and art of two among the mightiest of ancient empires.

Less than ten years has produced an astonishing change in our knowledge of Nineveh. Botta, Layard, George Smith and others, have disentombed its remains, and thrown light on its history to such an extent, that it is easy now to transport ourselves to the banks of the Tigris, and to see the city as it was in the days of its meridian splendour, its mightiest power, and most palmy pride. But a personal inspection of the Assyrian antiquities, preserved in the Louvre at Paris and in our own

museum, still more powerfully excites the imagination, and gives vividness to the picture; because, there you have before you the very sculpture in which the arts, manners, and customs of the people are portrayed, and on which the eyes of the Ninevite citizens gazed between two and three thousand years ago. With the fresh remembrance of what may be seen in these national repositories of art, and with the explorer's researches before us, we would endeavour to present a *tableau vivant* of ancient Nineveh; not drawing on our fancy for any of the materials, but simply weaving together what we have gathered by inspecting sculptures and studying books. As we shall suppose ourselves spending a day in the metropolis of Assyria nearly three thousand years ago, it will enable us the better to convey our impressions, if we may be permitted to indulge in the anachronism of employing allusions to subsequent times.

We are on the banks of the Tigris, then, by the great delta formed by that and the river Zab. The country round is undulating, but not mountainous; fertile, but needing the careful art of the husbandman to bring out its fruitfulness. The winter rains bountifully enrich the soil, but artificial irrigation is required, and many a canal has been cut for conveying over Assyrian farms the waters of the river, swollen by the melting of the snows on the mountains of Armenia. Vines, olives, and fig-trees are cultivated on the hills. "It is a land of corn and wine, a land of bread and vineyards, a land of olive oil and honey." A plough, not unlike an English one, cuts out the furrow in yonder field! and a cart, also resembling our own, drawn by oxen, is at this moment slowly passing before us.

Look along the river, and see how the palace gardens reach down to the margin of the water, terrace beneath terrace, adorned with flowering shrubs. Beside the broad

steps, flagged with alabaster, brightly painted galleys are moored; and, as you watch, you see groups of figures, in oriental costumes, descending to enjoy the cool breeze; while slaves are at their places on board, oar in hand, to row them up the stream.

Sit down here for a moment on the bank, under the shadow of those feathery palms, and watch the angler busy with his sport. Mark, too, that temple, under the shadow of which he stands, with its unornamented pilasters and massive columns, the entablature surmounted by little battlements in the Arabian style. Not far off, on the top of that gentle hill covered with the graceful cypress, you discern an altar, or monument, raised on a square base, with fluted shaft. But perhaps you have not much taste for architectural details; then look yonder at the bridge of boats; or, nearer still, observe those men rowing over the river in a large bark, with a chariot on board, some horses swimming after them, led along by bridles in the hand of him who occupies the lofty-crested stern.

But we must take you to the city itself. A great city it is, of three days' journey, or sixty miles in circumference, including within that space woods, gardens, fields, and pasture lands, whitened here and there with flocks. The city is not all walled round; but certain quarters or divisions of the city are so. In each of these divisions, a group of magnificent edifices, reared on elevated foundations, rises aloft with a kingly air over adjacent abodes and other buildings. Between these districts and fortified portions are the agricultural regions, with humble dwellings of mud and reeds, rounded at the top, and not appearing dissimilar to the wattled wigwams of modern days in lands half-civilized. The Ninevites live also in tents as well as houses, and within them, you see, are articles of furniture, such as tables, couches and chairs; while suspended to the tent-poles are vases for cooling water in this sultry climate. The city, with these broad spaces of rural scenery spread between the fortified quar-

ters, looks like an assemblage of cities rather than a gigantic unity. Yet, the latter it really is; and these distinct clusters of magnificent buildings have been raised at different times by mighty princes, who have thus extended the range of their capital, and sought to leave a monument of their wealth and glory.

Along the roads, under the walls of this huge fortification, you now see a royal procession: the king, gorgeously habited, riding in his chariot, with horses four abreast; and other chariots containing standard-bearers, the animals richly caparisoned, "the Assyrians clothed in blue, captains and rulers, all of them desirable young men, horsemen riding upon horses." The chiefs of the eunuchs wear long robes and fringed scarfs and embroidered girdles. Soldiers are in coats of chained mail and conical-shaped helmets, just like the pictures of our Norman knights. The personages of the group evidently have taken especial care of their hair and beards—the former being gathered up on the shoulders, the latter curiously curled in rows. Their eyelids are painted black, their ears are pierced with rings, and their wrists are encircled with elegant bracelets. As the royal *cortège* sweeps up towards one of the neighbouring palaces, there are ladies looking over the battlements of the walls between the towers, upon the brilliant pageantry, with evident signs of interest. Their hair flows over their shoulders, but it is confined about the head with a fillet; their dress is fastened round the waist by a sash. The walls of the fortifications are of immense thickness, some as much as forty-five feet, and are composed of two or three courses of massive masonry, to the height of about four feet. Above, the structure is of sun-dried bricks, for which the materials are abundantly supplied in the alluvial soil of the neighbourhood. The edifices which crown the different quarters, and form the citadels, are raised conspicuously on artificial mounds or platforms. Let us examine the one before us.

We ascend, and pass through a gateway

placed on a noble terrace in front of the main building, crossing a beautiful garden full of the richest colours and sweetest odours. We reach another elevation in front of the chief entrance. Climbing the broad steps which conduct to the top, we there pass between gigantic figures, which are of frequent occurrence in this strange city, and must detain us for a moment. The outer edge on each side exhibits two human-headed bulls, with lofty wings, standing back to back; and betwixt them an enormous human figure strangling a lion in his arms. Between these there are two other winged bulls looking outwards, designed on a yet vaster scale. Statues of this description adorn every part of this huge pile of architecture. Winged lions, of the same general character with the bulls, are found in other portions of the city, guarding the approach to stately edifices. As many as six may be found gracing one doorway—two forming the pillars, and two placed on the anterior front of each of the lateral piers. Certain of these colossal creatures have human arms with the legs of lions, one hand carrying a goat or stag, the other a bunch of flowers. They are carved in stone of different kinds, and manifest the eminence of the sculptor's skill. They are bold in execution as well as design, and have a life-like appearance if you continue to gaze on them. The features in the face are thrown out in strong relief, while the rows of curls on the beard and the feathers on the wings are chiselled with exquisite skill and truthfulness. Amazing strength is expressed in the distinctly marked muscles of the limbs, and the hoof of the bull and paw of the lion are hewn with admirable precision. These strange animals are clothed with drapery, fastened by a bandage displaying tasseled ends.

We must, however, hasten away from these specimens of Assyrian art, and enter one of the courts to gaze on the immense façades before us. In the centre is a splendid portal, consisting of two advanced pedestals, on each side of which stand another pair of bulls, back to back, with

another giant in conflict with a lion. Courts, surrounded by such façades, having portals of the kind now described, occur with a frequency that confuse the stranger who has only time to take a hasty glance. The attention of the visitor may well be riveted on these external walls, which are all sculptured and painted over with a life-like form, especially now that the sun is at the noon-day hour shedding on them, through a pure oriental atmosphere, his most brilliant beams. The daily life, the manners and customs, the costumes and ornaments, the occupations and tastes of Assyrian society, from the monarch and his court down to the humblest soldier and the meanest artisan, are depicted on these walls; so that, as from the surface of a calm lake or river, the surrounding scenery of the city is thrown back in all its shapes and hues.

But we have not yet entered within the building. Step into this vast chamber through one of its great doorways. Take a side one, and glance at the winged figures, human and hawk-headed, which, instead of common posts, sustain the lintel. The centre entrance is a repetition of the winged bulls. Having entered, look around. What a collection of bas-reliefs on the wall! To the height of ten feet or more, there are slabs of alabaster, exhibiting the achievements of Assyrian monarchs. War is the principal subject. Chariots and horsemen are seen going out to the field, or engaged in the conflict, or returning from the victory. Captives are paying tribute or undergoing punishment. The pleasures of the chase relieve these martial scenes. There are trees and huntsmen. Yonder are representations of the Assyrian court; and again, there are subjects of religious significance. The eye is bewildered with these minutely carved and variegated slabs, affording materials for the study of the kingdom's history, the monarch's character, and the people's employments. Courses of sun-burnt bricks surmount these slabs, which are enamelled and painted with architectural ornaments, honeysuckles, and scrolls. The walls of this long chamber are carried up

to the height of about nineteen feet, with a low parapet on the top, which from its exceeding breadth forms a platform where people can walk. Double rows of dwarf pillars run along the platform and support a flat roof, plastered on the upper surface. Two rows of pillars also divide the centre of the hall lengthwise, and bear up the main roof, which is also flat, angular roofs with trussed timbers being apparently unknown in this stage of architectural design. Curtains are hung round these upper stories, and serve to temper the sunlight as it flows into the body of the hall. The ceiling is painted in gorgeous colours, and inlaid with precious wood and ivory. The beams are of cedar and gold leaf, and plates of precious metal are profusely used in the decoration. The chamber is paved with alabaster slabs, curiously inscribed with royal names, genealogies, and exploits. Winged bulls, monstrous animals, and a tree of mystic import, are of constant occurrence among the ornaments of this and other chambers. At the upper end is the colossal figure of the king in adoration before the supreme deity, or receiving from his attendants the sacred cup. He is attended by warriors bearing his arms, and ministered to by winged priests or presiding divinities. His robes, and those of his followers, are adorned with groups of human figures, animals, and flowers. This building, within the halls of which we wander, has a twofold design. It is a temple as well as a palace. A sacred character is given to all its courts and chambers. The king is priest—a hallowed, almost a divine, personage. He is the worshipper, the friend, the child of the gods. The symbol to which he pays his adoration is a winged figure, in a circle, carrying a sword and holding a bow. It betokens the deity of war, and is in harmony with the character of the nation, whose dominant tastes and favourite pursuits are all martial. The monarch is regarded as the special object of the divine care; and in the bas-reliefs which stud his palace walls, the mystic sign is represented above his head.

While we have been examining this hall, so worthy of the regal palace it adorns, the stone slabs—presenting the historical records of the kingdom—have so absorbed our attention as to render us insensible to the eunuchs, officers, and soldiers who have passed to and fro to perform their master's bidding. But a spectacle of living magnificence now invites our notice; and we must stand back to see the sovereign and his court as they enter through the spacious doorway formed by statues with eagle heads. The monarch wears on his shoulders a splendid cape adorned with tassels, with an embroidered robe beneath, which is edged with fringes and descends to the ankles. He wears a tiara, a golden necklace, earrings, bracelets, and sandals. He is attended by an eunuch, who holds in his hand a kind of parasol or fly-flapper, to shade the monarch's face and drive off the insects. It is curiously constructed and carved, the one end opening like the petals of a broad flower, the other wrought into the shape of a lion's head.

With the king are the officers of his court, in gorgeous array, and mail-clad warriors bearing bow and lance. The Great Hall is turned into a chamber of audience, and the representatives of conquered and tributary provinces are coming to do homage to the great king. The throng around the monarch share in his pride and satisfaction; and the ladies of the harem are looking down through the lattice and curtains of the gallery upon this grand display of their lord's dominion. The tributaries enter. One brings the model of a fortress, significant of the city he represents; another holds a couple of vases; a third carries on his shoulders the figure of a car. Other personages, bringing emblematical presents or real treasures, throng the hall, while the larger forms of tribute remain without, including camels and elephants for the king's service. We see here a large source of Assyrian revenue. The king's coffers and storehouses are fed by draining the wealth of dependent states. The abject servility of the tribute-payers evinces the crushing

despotism under which they writhe, and their fears of provoking the displeasure of their potent suzerain. Beside the riches thus obtained by the annual payments exacted from those the Ninevites have subdued, there are preserved, in the strongholds of this royal palace, the gods of many countries whom they have conquered, and which the soldiers of the king brought upon their shoulders into the city to swell the glories of their master's triumph.

A banquet is preparing. The monarch is to feast with the men of chief estate. The tables are spread in a spacious hall; sumptuous provisions are laid out; and the glittering plate of this oriental prince is brought forth to deck the board. The guests do not recline on couches as in some eastern feasts, but sit on chairs, or rather stools, placed on either side the tables, after European fashion. The throne-seat of the monarch is of the same shape with the rest, having legs richly carved at the bottom, and bulls' heads at the corners of the seat; but it is altogether without a back. He takes his place; his lords and mighty men and warriors fill up the tables; eunuchs draw water or wine out of large vases for the feasters, and bear it in cups shaped at the bottom in the form of a lion's head. The company have no knives or forks, but eat with their fingers, and every now and then lift up the lion-headed beakers to quaff the welcome beverage. Music adds to the pleasures of the feast. A band of performers is stationed in the hall, most of them with lyres. Both hands at the same time sweep over the instrument, which is fastened by a belt over the right shoulder.

We are permitted to penetrate the culinary mysteries of this vast palace. Entering one kitchen, we behold a woman boiling provisions in earthen pots, supported by tripod-like frames. Within another, we find two more dressing the carcase of a goat. In a third, a man is seen baking things in an oven. Again, we enter a fourth room, and there are females grinding corn, one of them busily turning round a hand-mill. From the kitchen you may glance at the

stables. Yonder is a slave grooming down a horse; and in another direction is a group of these animals, drinking at a tank.

Returning into the highway from this imperial abode, we see everywhere around us magnificent specimens of Assyrian art, courts adorned with statues, gateways flanked with bulls and lions; but we miss in the prevalent style of architecture certain features that are predominant in the buildings of other lands, such as columns and windows. Façades and walls would have a dull appearance, and be without effect on the eyes of beholders, were it not for the elaborate sculptures which adorn them. As we leave the temple-palace, we pass some beautifully carved sphinxes in alabaster; the body of each is that of a winged lion, the face is beardless, and the cap square; the top forms a flat slab fitted for sacrifices and offerings to the gods. Not far from it is a beautiful obelisk, about the height of a very tall man, with five small bas-reliefs carved one below another, and a long piece of writing, in cruciform characters, beneath. The subject of the sculpture is some great victory, the king standing with a captive prostrate at his feet, and eunuchs advancing with vases, shawls, rare wood, tusks, and other articles of tribute. Various animals are also represented among the trophies—elephants, camels, antelopes, bulls, and a rhinoceros—evidently indicating distant conquests.

The Ninevites are particularly addicted to hunting. Nimrod, who laid the first stone of the Assyrian kingdom was "a mighty hunter before the Lord;" and Ninus, the reported builder of the city, was as renowned for his exploits in the chase as for his achievements in the field. In earlier times, when the immediate vicinity of human dwellings was infested with wild beasts, it was as important a service for a prince to clear the neighbouring forests of these savage animals as for him to defend his territory against the assaults of invading armies. The monarchs of this empire have therefore combined the hunter with the warrior, and in this respect the pursuits of the people have

ever resembled those of the prince. They are a nation of hunters. Parks and paradises, and preserves for animals of all kinds, are maintained within the gigantic boundaries of this kingdom-like city at immense expense. Lions, tigers, wild boars, antelopes, and many varieties of birds, are kept for the diversion of the king, and those who are privileged to join him in the sport.

We are now on the outskirts of a field where the people of Nineveh practise archery. Yonder is a target, placed among the trees, on the disk of which is inscribed a lion. A stalwart figure is aiming his arrow at the mark. Wandering some distance through fields of corn, and tracts covered with forest trees, we light upon a party actively engaged in their favourite sports. They hunt in chariots. A lion lies slain; another, stung to madness by the wounds he has received, turns on his assailants. The charioteer urges on his horses. A stately figure in royal attire turns round with his bow, and aims a dart at the animal. Soldiers on foot, with spear and shield, are close behind to assist in slaying the beast unable to escape. In another direction, you may see a bull-hunt. Here, too, chariots are employed; and men on horses, holding in their hands both spears and bows, are in eager pursuit. The animal falls, pierced by many an arrow. Wild oxen, covered with long shaggy hair, are hunted in this way.

But we must terminate these ramblings. Night is coming on. The sun has gone down, and left much of the great city in deep shadow. The outline of the huge masses of building stands out distinctly against the clear blue sky, up which the broad moon is climbing, to give views of Nineveh solemn and suggestive. We sit down upon an eminence, and gaze upon the lengthening masses of building that stretch out into the distance, intersected with gardens and woodlands. The scene indicates wealth, power, and civilization—civilization beyond that of Egypt, but below that of Greece. But who, in thinking of the sculptures we have examined, can help feeling that the civilization of Nineveh is instinct with a spirit of proud

egotism? It is a kingdom inflated with surpassing vanity. They flatter—they exaggerate—they almost deify themselves. Themselves, great and mighty; others, poor and weak. Themselves, conquerors; others, vanquished. Themselves, rulers; others, slaves. Alas! too true also of all people; each nation exalting itself over other nations, forgetful of the brotherhood of the race. And superstition and idolatry corrupt Ninevitic civilization. These evils have left their impress everywhere. In the very fulness of national pride, the Assyrians so degrade themselves as to make bulls and lions the symbols of their divinities. They reverse God's order. The inferior creation which they were meant to rule, they really worship; the true God they ignore. The one living eternal personal Being who made them and all things, they know not, because they have not liked to retain Him in their knowledge.

Such are the pictures and thoughts of Nineveh, suggested by what we have seen and read. Confirmations are thus afforded of what the Hebrew Scriptures have described and predicted respecting this extraordinary place and people. How the researches of Botta and Layard silence the infidel, and strengthen the faith of the Christian, and assist us in the intelligent study of the sacred records! Incidental allusions by the historians and prophets, to manners and customs seeming strange, are verified by the monuments now brought to light. It is demonstrated that the Bible gives a true picture of the ancient life of the world. The crumbling mounds of Mosul, and the rest, show the fulfilment of scripture prophecies relative to the ruin of Nineveh, while the records of the past they so long entombed, but which are now revealed in the nineteenth century, exhibit the glory of Nineveh before its ruin. For hundreds of years the naked, melancholy banks of the Tigris showed that the Hebrews were true prophets. The discoveries of the present century show that the Hebrews were true historians. And what a background does the description we have given

afford for bringing out the wonderful story in the book of Jonah! We see the great city, wherein were more than six-score thousand persons who could not discern between their right hand and their left, and also much cattle. We see it as he saw it; see it as it was when God looked on it with

so much compassion, and gave reasons to the angry prophet why it was spared. Nor can we fail to recognise the Divine hand in the effect of Jonah's preaching. What a scene it was when the people sought the true God in prayer—the brightest hour that ever dawned on Nineveh.

THE BREAKING UP OF AN ICEFIELD.



IN his travels in the Arctic regions, Dr. Scoresby was the astonished witness of a tremendous scene:—

“While navigating amidst the most ponderous ice which the Greenland sea presents, in the prospect of making our escape from a state of *besetment*, our progress was unexpectedly arrested by an isthmus of ice, about a mile in breadth, formed by the coalition of the point of an immense field on the north with that of an aggregation of floes on the south. To the north field we moored the ship in the hope of the ice separating in this place. I then quitted the ship and travelled over the ice to the point of collision to observe the state of the bar which prevented our release.

I immediately discovered that the two points had but recently met, and that the motion had not abated. The fields continued to overlay each other with a majestic motion, producing a noise resembling that of complicated machinery or distant thunder. The pressure was so great that immense fissures were occasioned, and the ice repeatedly rent beneath my feet. In one of the fissures I found the ice upwards of twelve feet thick. In one place hummocks of ice had been thrown up to the height of twenty feet from the surface of the field, and at least twenty-five feet from the level of the water; they extended fifty or sixty yards in length, and fifteen in breadth, forming a mass of about two thousand tons in weight. The majestic, unvaried movement

of the ice, the singular noise by which it was accompanied, the tremendous power exerted, and the wonderful effects produced, all were calculated to excite admiration in the mind of the most careless spectator.”

The late Captain F. C. Hall, who made such noble efforts to discover any possible survivors of the Franklin expedition, witnessed a similar sight:—

“Of the various bergs I particularly noticed a few descriptive words may here be said. The first that attracted my attention resembled an old castle; the ruins of a lofty dome about to fall, and a portion of an arched roof already tumbling down, were conspicuous. Then, in a short time, this changed to a picture of an elephant with two large circular towers on his back, and Corinthian spires springing out boldly from the broken mountains of alabaster on which he had placed his feet. At the third view I obtained, when at a greater distance, it looked like a lighthouse on the top of piled up rocks, white as the driven snow. It required no great stretch of the imagination to finish the similitude when the sun, for the first time during a week, burst forth in all its splendour, bathing with its flood of golden fire this towering iceberg lighthouse.

Another berg I could not help calling the Gothic iceberg. The side facing me had a row of complete arches of the true Gothic order, and running its whole length were mouldings, smooth projections of solid ice, rivalling in the beauty of all their parts anything I ever saw. The architecture, frieze, and cornice of each column support-

ing the arches above, were as chaste and accurately represented as the most imaginative genius could conceive. Here and there I saw a delicate scroll which was quite in keeping with 'Hogarth's Line of Beauty.'

As I was still gazing, it suddenly overturned, and burst into a thousand fragments."

Icebergs, amongst other fantastical shapes, occasionally appear as vast floating bridges, with one or more arches of proportionate size, the perforation or tunnel having been effected by the combined efforts of the wind and the wave. Sometimes a solid floor, rising a few feet above the level of the water, offers a novel kind of promenade to adventurous spirits; but more frequently the crystal aperture presents an unobstructed passage for the coursing of the sea. It was into one of the latter that the writer of the subjoined account ventured to steer his boat:—

"When we got to the entrance of the arch the transparency of the sea, which was of a fine ultramarine, enabled us to see that there was a sufficiency of water for us to pass through. We therefore pulled slowly under, when there burst upon our sight one of the most magnificent and splendid specimens of nature's handiwork ever exhibited to mortal eyes, the sublimity and grandeur of which no language can describe, no imagination conceive.

Fancy an immense arch of eighty feet span, about fifty feet high, and upwards of a hundred in breadth, as correct in its conformation as if it had been constructed by the most scientific artist, formed of solid ice of a beautiful emerald green, and its surface of a shining smoothness, surpassing the most polished alabaster, and you may form some slight idea of the architectural beauties of this icy temple, the wonderful workmanship of time and the elements.

When we had rowed about half way through, I observed that the ice was rent

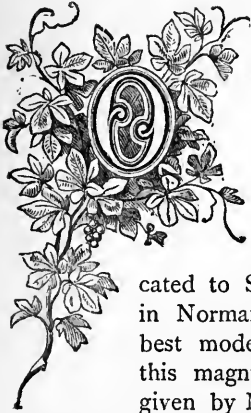
directly over our heads, the fracture extending the whole breadth of the arch, and in a perpendicular direction to its summit, exhibiting two vertical sections of irregular surfaces, 'darkly, deeply, beautifully blue,' here and there illuminated by an Arctic sun, which darted its golden rays between, constituting a picture of ethereal grandeur, which no poet can conceive, no painter portray. I was so enraptured with the view, that for a moment I fancied the blue vault of heaven had opened, and that I actually gazed on the celestial splendour of a world beyond. While my eyes were thus riveted on the glorious scene, I observed the fracture gently close, then slowly open.

An involuntary shudder ran through me; I woke as it were from a delightful dream to all the horrors of a terrible reality. This immense body of ice, thousands, probably millions of tons in weight (in the centre of which we were), was afloat, consequently in motion, and about to lose its equilibrium, capsize, or burst into fragments. Our position was awful, and my feelings at the time may be conceived, but cannot be described. I looked downwards and around me, the light was equally appalling. I fancied the very sea was agitated. At last I shut my eyes upon a scene so terrible, the men at the oars, as if by instinct, gave way, and our little punt swiftly glided beyond the reach of danger.

We then pulled round the berg, keeping at a respectful distance from it, in order to form some idea of its magnitude. We supposed it to be about three-quarters of a mile in circumference, and its highest peak about two hundred feet.

Thus ended an excursion the remembrance of which at this moment produces a feeling of horror. At 10 p.m. that same evening the berg halved with a noise resembling thunder. I was the only one of my company, as I subsequently found out, who had observed the rent when within the arch."

ROUEN CATHEDRAL.



ONE of the most splendid specimens of ecclesiastical architecture to be found on the continent is the cathedral dedicated to St. Ouen at Rouen, in Normandy. One of the best modern descriptions of this magnificent structure is given by Mr. Macquoid, from which the following is epitomised.

The best time to see the west front of the cathedral, represented in our picture, is just after sunset, when its details are somewhat obscured and broadened by the absence of brilliant light. The effect of the grand mass of picturesque building filling up one side of the open square is most impressive.

One stands a long time looking at this grand church. The detail is so luxuriant that one's eyes get tired of trying to examine its elaborations. The doorways under the three entrances to the porch are ornamented with bas-reliefs, but these were greatly injured by the Calvinists in 1562. The accumulation of sculpture in images, canopies, galleries, crocheted pinnacles, is bewildering; the most obvious features, perhaps, of the building, are its massive proportions and the marvellous effects of light and shade, as the light touches the outermost portions, leaving those under the porches in deep shadow.

The northern tower, or the tower of St. Rouain, on the left of our picture, is the most ancient part of the building. Before the revolution it contained eleven bells. It is in a far purer, severer style than the rest of the cathedral. The upper part is far more recent than the foundation, and was probably finished in the year 1477.

The west front itself was built by the first

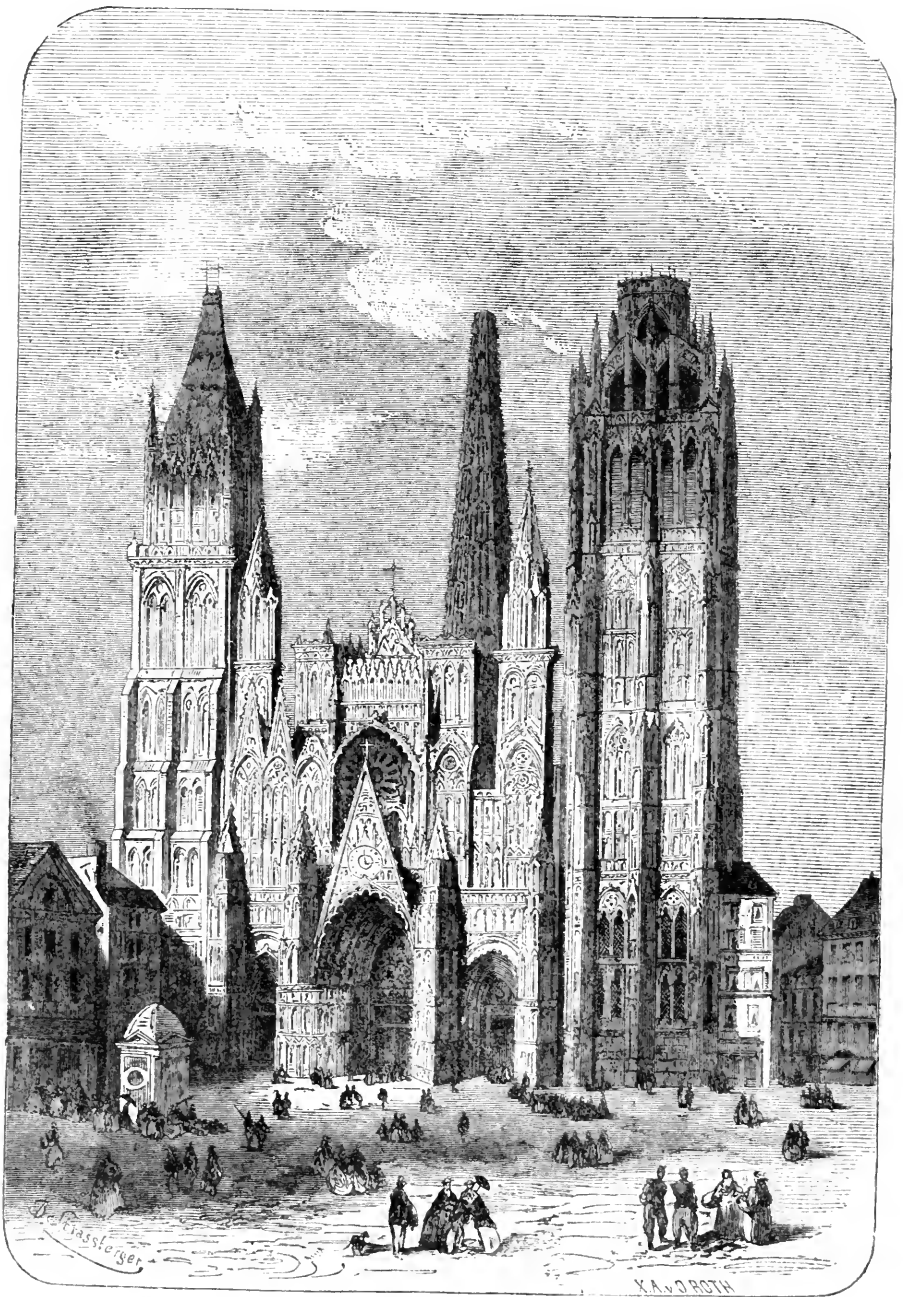
cardinal, the famous Georges d'Amboise. It was begun in 1509, and finished in 1530. The Butter Tower, on the right (so called because it was built with the alms of the faithful who purchased leave to eat butter during Lent), is 230 feet high. Robert de Croixmare, Archbishop of Rouen, laid the first stone in November, 1485; it was consecrated in 1496, and finished in 1507. It was for this tower that Cardinal d'Amboise caused the famous bell to be cast, which was christened Georges d'Amboise. The circumference of this bell was thirty-six feet, its height ten feet, and it weighed 36,000 lbs. Its founder, John le Machon, is said to have died of joy twenty-six days after the casting of this bell.

When Louis XVI. visited Rouen, in 1786, the bell was rung so loud that it cracked. At the revolution it was melted down into cannon. Some few pieces were made into medals bearing this inscription:—

“ Monument of vanity,
Destroyed for utility
The second year of equality.”

The northern portal is flanked on each side by beautiful open towers. The sculptures over the entrance door are taken from Ovid's *Metamorphoses*. The porch was begun in 1280, and not finished till 1478. It was used by great personages on their visits to the cathedral, only kings and princes of the blood being admitted by the great western door. The court in front was used as a burial ground for some time, but was disused on account of a murder having been committed in it.

At first sight the interior of the cathedral is disappointing. Although the length of the building from the door to the end of the Lady Chapel is 450 feet, the massive effect of the whole is frittered away by a second tier of arches opening into the aisles. These dwarf the principal arches, and de-



ROUEN CATHEDRAL.

stroy simplicity of effect. The screen, too, is inharmonious ; but the stained glass windows are very beautiful, and are well worth a careful study.

There are twenty-five chapels round the cathedral, and some of these contain most interesting monuments. At the end of the aisle is the tomb of the Danish Duke Rolf, removed from its first place behind the high altar when the cathedral was enlarged. Rolf was the founder of the dukedom of Normandy. Opposite lies his son, William Longmow, who was assassinated by Arnulf, Count of Flanders.

Against the railings of the choir is the tomb of Richard Cœur-de-Lion, with his long lost effigy, discovered in 1838. It had been buried, it is supposed, to escape the fury of the Huguenots, who pillaged the cathedral in 1562. It is an immense recumbent statue of thirteenth-century work, roughly hewn out of a single block of limestone ; the crowned head is supported by a square cushion ; the feet rest on a lion

couchant ; the left hand has evidently held a sceptre ; the right hand has disappeared. He wears a close-fitting tunic, bound round the waist by an embroidered belt, of which one end hangs down in front ; over this is a long mantle which reaches nearly to the knees. Richard was buried at Fontevrault, but it was known that he had bequeathed his heart to the city of Rouen on account of the great love he bore to the Normans. There has also been found a double box of lead, with this inscription on it in black letters :—"Hic : jacet : cor : Richardis : regis." Inside, in a green silk bag, was found the heart perfect ; it is now in the museum of antiquities.

Exactly opposite, on the other side of the choir, is the tomb of Henry Plantagenet, the eldest son of Henry II., and behind the high altar is the tomb of John, the famous Duke of Bedford mentioned by Shakespeare. Time, however, would fail us to tell half the treasures and curiosities of Rouen Cathedral.

SILK FACTORY ON MOUNT LEBANON.



WE started from Beyrout at day-break one morning in the month of May, 1850, in company with an intelligent young Frenchman, and the proprietor of perhaps the most extensive silk-reeling factory in all Syria. Our object was twofold ; to combine pleasure with information, healthful recreation with the acquirement of useful knowledge.

We were to be the guests of our worthy host for a whole week, and accordingly looked forward with no small pleasure to what was in store for us. Even at the early hour at which we started, the confined and stifling atmosphere of the streets was most intolerable, and we gladly emerged

from the last dingy gateway of the black old citadel, upon the sands which, though fifteen years ago a perfect desolation, are now brightly interspersed with the gardens and gaily painted little dwelling-houses of the Franco-Syrian population of Beyrout, who are far too wise to dwell within the infectious precincts of the town itself.

Our course lay alongside the sea coast as far as Nahr el Kelb, or the Dog River, the resort of vessels when the oft-occurring gales of Beyrout render its anchorage unsafe. Here too is the Lazaretto or quarantine establishment, and one or two small taverns, besides a large Turkish khan for travellers. Passing these, we commenced the ascent of the mountains, and soon after began to encounter groups of villagers who were bringing to the more profitable markets of

Beyrout, vegetables, fruit, and other provisions for the wants of every-day life. Now and then a lady, carefully veiled, and carrying on her head the symbol of a Druse woman, the lofty horn of Lebanon, diversified the scene, and called back to our memory that passage from Holy Writ which speaks of the horn being exalted. It was a rugged ascent, and in some parts our jaded mules could scarcely overcome the rapid succession of almost insurmountable rocky steps; finally, however, we reached an eminence, from which we commanded an extensive view of the surrounding flat country and the horizon-bound ocean. Beyrout and its interminable sand-hill appeared in the distance, and the shipping off the harbour looked like black specks upon the clear deep blue sea. Vessels bound on various courses showed their diminutive white sails in the golden sunlight, and the white specks on the ocean (called cauliflowers by seamen) bespoke the near approach of the coming sea breeze.

We diverged from the public road, and skirted along the mountain range by a pathway which led us in a direct line to the factory and private domicile of our French friend. Half an hour's ride brought us within sound of the foaming waters of a cataract, and then a sudden angle in the pathway revealed to us the factory itself—a dark, sombre, desolate-looking place, built on the very edge of a frightful precipice, down whose yawning gulf the torrent that swept through the factory itself leapt, wildly roaring, from rock to rock, in all the white majesty of its cream-girt crest. Above the hazy mist that rose from the waterfall, a few birds of prey were idly hovering in the air, apparently in expectation that the waters would bear down with them some acceptable booty, while ever and anon they would dive with a mighty swoop right into the darkest portions of the mist, and then re-appearing, soar high away with the prize of their undaunted courage, possibly in the shape of a snake, but oftentimes the mere offal of cattle and poultry slaughtered at the factory or its adjacent villages, dang-

ling from the firm grasp of their horny talons.

After scrambling up to a considerable height, we came to the entrance of this monastic-looking factory; a high wall, which excluded everything in its interior from our sight, ran down the mountain side and terminated abruptly with the abyss. We alighted, and entered through a massively built and strongly fortified gate, whereupon the whole scene was changed in an instant as if by the touch of magic. Outside, all was sombre and dreary; inside, all was lively and gay. The transforming effects of art and industry were before us. The barren-looking soil was metamorphosed into the flourishing fruit-orchard; and the whole mountain having been, according to oriental usage, laid out in terraces, like a giant flight of steps, we, who stood on the uppermost terrace, commanded an uninterrupted view of all those beneath, consisting of a deep succession of well-cultivated and carefully tended fruit-gardens, mulberry-trees, flowers, and vegetables; in short, every variety of tree, flower, or herb, which is at all sought after in Beyrout, here flourished to perfection. As we descended the well-built stone steps, and landed from terrace to terrace, we found fresh cause for congratulating our friend on the great taste he had displayed in the arrangement of the grounds.

At length a substantial wooden railing and a prettily worked iron gateway indicated to us that we had reached the entrance to our friend's house and factory, and there, before us, rose a long row of white buildings, consisting of the private domicile of our friend and his *employés*. To the left ran the factory, and the small huts of the native superintendents and the gardeners. Flowers grew here in wild profusion; and as for the poultry-yard, it would have done a hungry man good to have looked at the fat turkey cocks, which, assembled in circles of half-dozens, were puffing and swelling and gobbling and strutting and sailing about in all their pride and glory. Fowls were cackling, and scores of tame red-legged partridges were giving full note to their pretty little call.

We found our friend's house nicely and comfortably furnished; the windows that looked towards the sea were immediately over the gaping precipice, and consequently strongly barred in with iron rails, lest any one by accident should fall out of them. The place was more like an eagle's nest than anything that I can compare it to; for the window bars were so far apart as to admit of your head protruding through. Looking down, you beheld beneath you the water that worked the reels of the factory, foaming out of an opening in the masonry which was built on an exact line with the rocky precipice. The first fall was about twelve feet; the next, no one could compute, for all was foam and blackness and mist, and your head reeled from giddiness after gazing for a few seconds on the fearful abysses below.

After partaking of breakfast, for which the mountain air and the ride had given us a keen relish, we followed our host into the business department, and visited the factory, which we found was worked by a combination of water and steam power; that is to say, the water power served to turn the reels, while the steam was employed to give sufficient heat to the water required to reel with. The factory otherwise very much resembled most European factories, of which too many descriptions already exist; but the reelers were the daughters of the wild

mountaineers, girls ranging from nine to fourteen years of age; and a prettier, merrier, healthier set of little creatures it would be hard to meet with. They had all originally had some acquaintance with silk, from the fact of their having been from childhood accustomed to rear the silkworm, and assist their parents at the wheel on which the Lebanon people were wont of yore to reel their rough silks. But under the care of matrons sent from Europe, they had acquired a perfection in the art. Every ten or a dozen girls had one of superior abilities to superintend their labours; to break threads when the reeling was badly minded, and to knot them when accident had snapped some finer thread. Perfect order was maintained in the room, and the only audible sounds were those occasioned by the incessant working of the machinery, the fall of water, and the occasional remonstrating voice of our friend or of one of his overseers.

The boiler was placed under the care of an engineer and an assistant. When twelve o'clock came, the great bell of the factory sounded forth, the work stopped as if by magic, the girls rose from their seats, and sought each one the small basket containing her frugal mid-day meal; and where all had been perfect silence heretofore, the room resounded with their merry talk and joyous laughter.

A CHINESE GARDEN.



WHEN I was formerly in Hong-kong, says Mr. Fortune, every one complained of the barren appearance of the island, and of the intense heat and glare of the sea. Officers in the army, and others who had been many years in the hotter parts of India, all agreed that there was a fierceness and oppressiveness in the sun's rays here which they had

never experienced in any other part of the world. From 1843 to 1845, the mortality was very great; whole regiments were nearly swept away, and many of the government officers and merchants shared the same fate. Various opinions were expressed regarding the cause which produced these great disasters; some said one thing, and some another; almost all seemed to think that imperfect drainage had some-

thing to do with it, and a hue and cry was set up to have the island properly drained. But the island is a chain of mountains; there is very little flat ground anywhere upon it, and hence the water which flows from the sides of the hills gushes rapidly down towards the sea. Imperfect drainage, therefore, could have very little to do with its unhealthiness.

I have always thought that, although various causes may operate to render Hong-kong unhealthy, yet one of the principal reasons is the absence of trees and the shade which they afford. In a communication which I had the honour to make to the government here in 1844, I pointed out this circumstance, and strongly recommended them to preserve the wood then growing upon the island from the Chinese, who were in the habit of cutting it down annually, and at the same time to plant extensively, particularly on the sides of the roads and on the lower hills. I am happy to say that these recommendations have been carried out to a certain extent, although not so fully as I had wished. It is well known that a healthy vegetation, such as shrubs and trees, decomposes the carbonic acid of the atmosphere, and renders it fit for respiration; besides which, there is a softness and coolness about trees, particularly in a hot climate, that is always agreeable.

The garden I shall attempt to describe is situated on the sloping sides of a valley, near the bottom of one of the numerous ravines which are seen on the sides of the Hong-kong hills. It is near the centre of the new town of Victoria, and is one of its greatest ornaments. On one side, nothing is seen but rugged mountains and barren hills; but here the eye rests upon a rich and luxuriant vegetation, the beauty of which is greatly enhanced by the contrast.

On entering the garden at its lower side there is a wide walk, leading in a winding manner up the side of the hill, in the direction of the house. On each side of this walk are arranged the trees and shrubs indigenous to the country, as well as many of the

fruits, all of which grow most luxuriantly. The Chinese banyan grows on the right-hand side, and promises soon to form a beautiful tree. This is one of the most valuable trees for ornamental purposes met with in the south of China. It grows rapidly with but little care, its foliage is of a glossy green colour, and it soon affords an agreeable shade from the fierce rays of the sun, which renders it peculiarly valuable in a place like Hong-kong. The India-rubber tree also succeeds well in the same part of this garden, but it grows much slower than the species just noticed.

On the other side of the main walk, I observed several specimens of the Indian "neem" tree (*Melia azedarach*) which grows with great vigour, but is rather liable to have its branches broken by high winds, owing to the brittle nature of the wood. This defect renders it of less value than it otherwise would be, particularly in a place so liable to high winds and typhoons. This same melia seems to be found all round the world, in tropical and temperate latitudes; I believe it exists in South America, and I have seen it in Gibraltar, Malta, Egypt, Aden, Ceylon, the Straits, and in the south and north of China, at least as far north as the 31st degree of north latitude. Among other plants worthy of notice in this part of the garden are the Chinese cinnamon, the pretty *Aglaia odorata*, and *Murraya exotica*, both of which are very sweet scented, and much cultivated by the Chinese.

Two specimens of the cocoa-nut palm imported from the Straits are promising well. Other fruits, such as the loquat, the Chinese gooseberry, the wangpee, and the longhu and leechee, are all succeeding as well as could be expected, considering the short time they have been planted. The *Pinus sinensis*, which is met with on the sides of every barren hill, both in the south and north of China, and which is generally badly used by the natives, who lop off its under branches for fuel, is here growing as it ought to do. The Chinese have been prevented, not without some difficulty, from

cutting off the under branches, and the tree now shows itself in its natural beauty. It does not seem to grow large; but in a young state, its fine green foliage reaching to the ground, it is not unhandsome.


As the main walk approaches the terrace on which the house stands, it turns to the right, between two rows of beautiful yellow bamboos. This species of bamboo is a very striking one, and well worthy of some attention in England; the stems are straight, of a fine yellow colour, and beautifully striped with green, as if done by the hand of a first-rate artist.

At the bottom of the terrace on which the house stands there is a long narrow bamboo avenue, which is called the "orchid walk." This always affords a cool retreat, even at mid-day, as the rays of the sun can only partially reach it, and then they are cooled by the dense foliage. Here are cultivated many of the Chinese orchids and other

plants which require shade. There are also various other plants which, taken altogether, render this shaded "orchid walk" a spot of much interest.

Above the "orchid walk" is a green sloping bank, on which are growing some fine specimens of bamboos, myrtles, oleanders (which thrive admirably in China), and *Buddlea Lindleyana*. The latter was brought down from Chusan by me in 1844, and is now common in several gardens on the island, where it thrives well, and is almost always in bloom, although the flower-spikes are not so fine as they are in a colder climate. A large collection of plants in pots is arranged on each side of the broad terrace in front of the mansion. These consist of camellias, azaleas, roses, and such plants as are seen in the Fa-tee gardens at Canton; many of the pots are prettily painted in the Chinese style, and placed upon porcelain stands.

THE INTER-OCEANIC CANAL OF AMERICA.

our reader happens to have a map of the world before him, let him cast his eye on the relative positions of California and New York. Lying as they appear to do, at a comparatively short distance by land, it will be perceived that, to be reached by sea, an enormous circuit must be made. The great promontory of South America must be sailed round, at a vast expense of time, toil, and peril. To add to this difficulty, it will be seen, on looking close at the map, that more than half this distance could be saved if, at the point where the South American continent contracts into what looks like a thin thread of land, a canal could be cut, so as to permit vessels to pass through from the Atlantic to the Pacific Ocean, instead of doubling Cape Horn. When the reader has fixed these geographical outlines in his mind, he

will have understood the first elements of a question which has of late been much agitated by the public press—"the Inter-oceanic Canal." It is, however, unhappily one of those enterprises which seem always on the point of coming off, and yet which somehow or other contrive to hang fire, and after filling columns of the newspapers, fall back again into the region of unfulfilled projects.

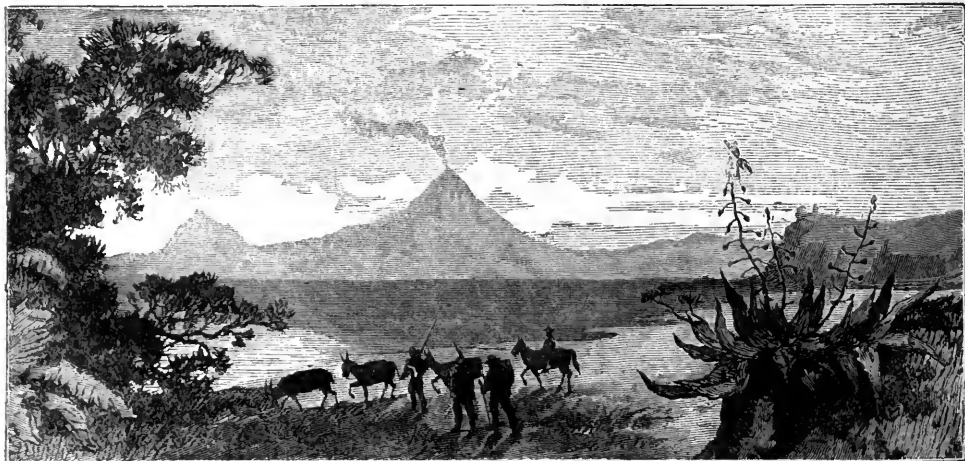
Charles V., after the discovery of America, seems to have had serious thoughts of cutting this canal; the enterprise slumbered on, however, until the independence of the Spanish colonies, and our celebrated bubble year of 1825 awoke it, only to fall asleep again. The late Emperor Louis Napoleon beguiled his captivity at Ham by writing a pamphlet upon it, and coolly proposed to style it "Canal Napoléon de Nicaragua." Still the project was but a project, and

nothing more. Within the last few months however, the matter seems to have been taken up in earnest.

Some years ago, a Mr. E. P. Squier was despatched to Nicaragua to act as the charge d'affaires for the United States, and paid of course, as was natural under the circumstances, considerable attention to the canal question. The result of his expedition was given to the world in a work published at New York. He is an intelligent writer, somewhat voluminous, terribly prejudiced against John Bull, and foolishly affects the airs of a man of gallantry; but these are

minor faults in a book otherwise of considerable merit and interest.

A smart sailing vessel from New York landed Mr. Squier and his companions at the port of San Juan de Nicaragua, the proposed terminus of the canal on the side adjoining the Atlantic Ocean. Whatever its future bustle may be should it become the grand transit station for West Indian steamers, American clippers, and the mercantile navy of all nations, the spot looked insignificant enough when Mr. Squier visited it. A few paltry cottages, with natives in a state of semi-nudity, composed the town.



SCENE ON LAKE NICARAGUA.

There was, however, a sort of attempt at a custom-house, where the British flag was hoisted in token of the friendly alliance of Great Britain with the king of Mosquito,—and about whose claims we had a smart diplomatic squabble with the United States. Mr. Squier did not remain long here, but made arrangements for ascending the river San Juan to Lake Nicaragua—the route which the Inter-oceanic Canal was to pursue.

Before starting, however, he took a short walk into the dense forests which, in all their ancient grandeur and magnificence, lie behind the town. Tropical flowers twined round the trees, and beautiful birds, with hues of green and gold, flew among

their branches; but, Eden-like as the spot looked,

“The trail of the serpent was over them all;”

and that not only poetically, but literally. The guides advised Mr. Squier's party to return, as two men had recently been bitten by snakes near the spot, and had died in great torture. As if to give them also another proof of the dangerous character of the locality, they saw, as they glanced through the bushes, some monstrous alligators slowly propelling themselves along the adjoining water. The hint was quite enough; they did not pursue their walk farther.

Having made his arrangements, Mr.

Squier embarked in an open boat, cabined at one end by a sort of folding-roof of half-dressed hides, diffusing an odour anything but pleasant. A motley but good-natured crew accompanied him; and fully alive to the honour of carrying a real ambassador on board, a little sort of ceremony had been got up to honour his departure. The captain of the boat, with a great conch shell in one hand, gravely stationed himself at the tiller, and when all was ready, gave on his marine trumpet a long unearthly blast, at the sound of which the oars dipped; the natives on the beach huzzaed, while the American flag was unfurled at the bow, and off sped the boat on its way.

The river San Juan, on which the voyagers were now fairly launched, runs to the sea from Lake Nicaragua, a distance of about ninety miles. It is quite unsuited in its natural condition for the purposes of a ship canal. A large portion of it is, it is true, quite navigable, having at some places a depth of two fathoms of water; but there are so many rapids, falls, projecting rocks, and contortions of the stream, that even small boats, like the one in which Mr. Squier was conveyed, can at certain points only make the passage with great labour and difficulty. The American government survey, however, undauntedly proposed to grapple with these difficulties, and recommended that the Inter-oceanic Canal should pursue this route, cutting a new channel to the extent of forty-seven miles, but using also seventy-two miles of the existing river, which was to be rendered navigable by a series of dams and flood-gates. All, however, was in its wild and natural state when Mr. Squier, with his Mexican *poncho*, waving the star-spangled banner of America at its prow, dashed along the San Juan.

The voyage was to be six days in length, and as the climate was enchanting, the party enjoyed themselves to the full. How indeed could it be otherwise? Who, we should like to know, would not have relished such a scene as is here described? "I never wearied," says Mr. Squier, "in gazing upon the dense masses of foliage

that literally embowered the river, and which produced magical effects of shadow on the water. On the banks of the stream, feathery palms were interspersed with other varieties of trees, some of which were of large size and draped all over with vines that hung in rich festoons. Birds of various plumage glanced in and out of the forest, and cranes and other water-fowl paced soberly along the sand bars, or flew lazily up the stream as we approached. Occasionally, too, a pair of green macaws—the macaw is rarely seen except in couples—fluttered slowly over our heads. The air was cool and fresh, reminding me of a morning in June." Our traveller seems to have been less captivated by the iguanas or lizards, which looked down upon his boat, and hundreds of which, resembling miniature alligators, of small size and bright green colour, were seen sunning themselves on every old trunk that projected itself into the stream. On, on, however, went the boat, through scenes of tropical loveliness, the boatmen chanting at times some impressive chorus. In this manner a day or two glided imperceptibly away, when, at a new turn of the river, the voyagers came in sight of the old and now deserted fortress of Castillo. Mr. Squier describes impressively his walk through its embrasures and galleries, cut out of the rock; his passage through bomb-proof staircases and covered ways, once ringing with the clash of arms; he visited, too, the spot where the draw-bridge stood, and the lofty towers where, in the time of Spain's glory, its silken standard floated on the wind. But all was now desolate and lonely—a few soldiers, living at a distance in a thatched cottage, being the only representatives of the garrisons that held the spot in days of yore. Here, by the way, Lord Nelson, when a captain, gained in 1780 some naval laurels; but, if we remember right, nearly lost his life by a serpent as he slept under a tree.

On returning to his boat, Mr. Squier experienced some of those difficulties which have given the San Juan such a bad character as a navigable river. Although his

little vessel had no freight, yet three hours elapsed before it could pass the rapids of the Castillo. This, of course, is one of those points where the canal would have to be dug, or the difficulty overcome by some artificial dams. On the morning of the sixth day of their voyage, however, the little party reached San Carlos, a military station, which commands the point where the San Juan joins Lake Nicaragua. Mr.

Squier had looked forward with much anxiety to his arrival at this place, and the scene which met his view seems to have been surpassingly beautiful. The broad lake spread like a mirror before them, its shores being marked by the volcanic peaks of some mountains, which, capped with clouds, rose dim and blue in the distance. Nearer lay the fairy-looking islands of La Boqueta, golden under the tropical sun ;



STREET IN RIVAS.

while, in the foreground, the emerald shores stretched their wide arms on either side—a fit setting for so gorgeous a picture.

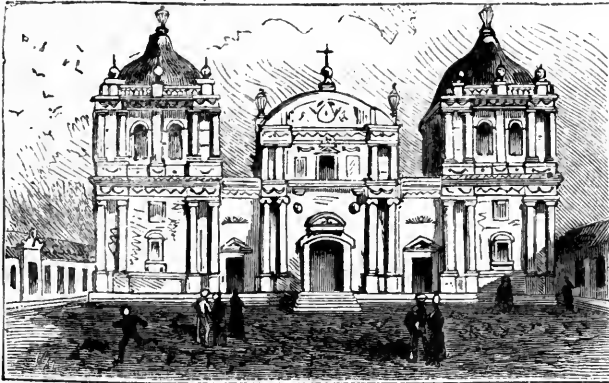
On landing at San Carlos, a courteous reception awaited the voyagers, from the commandant of the town. A distance of some ninety miles had been traversed, and the party were by no means loth to partake of the hospitalities which were spread before them in the shape of dried meats, luscious,

plantains and other edibles. As they sat at dinner, however, in the governor's house, they could see one of those drawbacks from a tropical climate which, in the shape of reptile monsters, it engenders. A low sandbank near the lake was crowded with alligators ; their black carcases were distinctly visible, and the commandant showed his guests a basket of their teeth, which had been picked up, and which were more

pleasant to contemplate in that condition than when adorning the living animal.

In reaching San Carlos, they had accomplished the first stage of the proposed canal. Lake Nicaragua formed, of course, the next point of transit. This is a large inland lake, about 110 miles long and some sixty miles broad, well adapted apparently, without engineering efforts, to float upon its waters vessels of the largest size. About fifty-six miles from the point where they had reached, in nearly a direct line across the lower extremity of the lake, stands the little river of Lajas. When a

vessel can reach this spot, it is only some seventeen miles from the Pacific Ocean. As might be expected, therefore, the place has long been looked upon as the most favourable point for the last stage of the Inter-oceanic Canal, and a survey of it was made for the purpose so long ago as 1781. Mr. Squier, however, having made a calculation of the engineering expenses,—which are greatly increased by the fact of a ridge of a mountain having to be cut through,—reckoned them at no less a sum than £52,000,000. Instead, therefore, of exploring this route, he resolved to examine another, which, al-



CATHEDRAL OF RIVAS.

though much longer, was yet invested with fewer mechanical difficulties. His plan was to proceed to the other extremity of Lake Nicaragua, a distance of 110 miles, and to explore a channel twelve miles in length, which connected it with another inland sea, called Lake Managua. The latter point once reached, there would be fifty miles of plain navigation for ships, and from the end of Lake Managua an easy cutting of some thirty miles would terminate the canal at the Estero Real in the Gulf of Fonseca. This route was a hundred

miles longer than the other, but balanced as this was by apparent economy of labour, the difference did not appear of any material consequence.

It was necessary, however, for Mr. Squier to proceed to the extremity of Lake Nicaragua before he could complete his survey; and he set sail accordingly for Grenada, a town which is situated but a short distance from the point of junction with Lake Managua. The voyage was a pleasant one, but it was not marked by any novel features. He found Grenada to be a

fine old town, built in the Spanish style, abounding in marks of wealth and old churches, whose treasures tempted the cupidity of the buccaneers when they attacked the city a hundred and fifty years ago. Pretty much like it was the town of St. Leon, which he also visited. The whole country might indeed in some respects be called a paradise, so rich was it in natural charms. Beautiful mango trees golden with fruit, and vistas of orange plants, adorned the gardens. When Mr. Squier describes the country scenes which he traversed, he seems to become immediately poetical in spite of himself. "I took off my hat," he says, when describing one of his journeys, "and throwing myself on the horse's neck, gave myself up to silence and the scene. The air was literally loaded with fragrant odours from a hundred varieties of flowers which blushed among the green thickets on every hand, while the waters of the lake flashed here and there between the trees like silver bars, and brilliant birds, noisy parrots, and dignified macaws in fiery plumage, looked down upon me as if I were an old acquaintance. Hundreds of lizards, bright green and gold, darted like rays of light before us, and large ants, each bearing a fragment of a green leaf above its back, marched across the path in solid columns, like fairy armies with long banners."

Lest our readers, however, charmed by these descriptions, should be forthwith desirous of emigrating to Nicaragua, we must candidly inform them that this delicious fairyland is not without some practical drawbacks; the three leading ones being volcanoes, revolutions, and superstition. As regards volcanoes, the whole district swarms with them; and Mr. Squier was present at a ceremony in one of the churches, which commemorated the escape of the town of St. Leon, in the year 1835, from an eruption of the most appalling character. The eruption in question took place on the 20th of January in that year. A lurid light shed a baleful hue around; terrific explosions were heard, and sand fell in such quantities that

the inhabitants feared that the roofs of their houses would be crushed under the weight. All nature seemed overawed; the birds deserted the air, and the wild beasts their fastnesses, crouching terror-stricken and harmless in the dwellings of men. The people for a hundred leagues groped, dumb with horror, amidst the thick darkness, bearing crosses on their shoulders and stones on their heads in penitential abasement and dismay. The strongest lights were invisible at the distance of a few feet; and, to heighten the terrors of the scene, occasional lightnings traversed the earth, shedding a baleful glare. This state of terror continued for forty-three hours, when the eruptions and shocks ceased. The noise of the explosions was heard more than a thousand miles off, and the superintendent of Belize, 800 miles distant, mustered his troops under the impression that there was a naval action off the harbour. This traveller also describes a place which the lava from one of these volcanoes had overflowed, as looking like a vast plain of iron newly cooled, black and forbidding; the whole spot indeed had the aspect of an ocean of ink suddenly congealed. This state of matters in some degree reconciles us to our more homely climate—for birds of paradise and Eden-like landscapes are somewhat too dearly purchased by proximity to a volcanic peak, which may some morning open and sweep away you and your family.

As to revolutions in South America, they seem even more plentiful than eruptions. One party gains the ascendancy, and proscribes all its opponents; but, before a few weeks are over, they themselves perhaps are running for their lives from some junta, who have managed to get the reins of power. There had been a comparative lull in the revolutionary market when Mr. Squier visited Nicaragua; but, even while he was there, the calm was not without interruptions.

One day, when at dinner, a sudden firing disturbed him, and the servant, rushing in exclaimed: "Sir, I think there's a revolution." "I had no time," says Mr. Squier,

"to reply, before the alarm 'un asalto de las armas' was raised in the streets, and the next moment a crowd of women and children, terror depicted in every face, rushed through the open court and along the corridors. These were followed by a confused mass, bareheaded and in the greatest disorder, which came pouring over the walls. They all crowded round me for protection. While this was going on the firing continued, and women with trunks, boxes, and bundles, containing their valuables, thronged into my house for safety. Some prayed, and others ran wildly here and there in quest of their children, husbands, or brothers, wringing their hands, and appealing me to save them." The attempt at revolution was on this occasion suppressed; but the above may be taken as a fair specimen of the stability of republican rule in South America.

After having occupied some time at

Grenada and St. Leon, Mr. Squier proceeded to explore the Rio Telepapa, or Panaloya, the stream which was supposed to connect the lake of Nicaragua with Lake Managua. He was now at the opposite extremity of the former lake, and contemplated the possibility of these two bodies of water being joined at this point by a canal. He found the supposed streamlet dried up, although there was a dry and rocky channel which had evidently at some former period been the bed of a river. Clumps of bushes were growing in it, and cattle and mules were grazing there. This dried-up channel led to Lake Managua, which extends some fifty miles; but Mr. Squier did not traverse this as he had done Lake Nicaragua. He had now completed the main line of his investigation, and the other portions of his journey, however interesting, do not relate to the Inter-oceanic Canal.

LIFE IN GENOA.



HE Festival of Palms seems always to have been one of the dearest of gala-days to the hearts of the Genoese people. Spring is then at hand, that will bring flowers and fruits and warm days. Passion week is close on the festival's joy, and there is woe to be met ere the Easter sun can dawn, so the people make merry for Palm Sunday and

and for many days before. Upon the first days of the preceding week those branches are gathered from the sunny plantations of Bordighera, that are to be plaited and adorned and consecrated in the churches, that they may wither out a whole year above the bed of some peasant woman or child. Not such a fair life, perhaps, as the life of those sister branches that flourish and wave and grow green again in the pale sunshine and the cool night-breezes of the

shores; but the same blue sky of Italy is overhead, and beneath it even the yellow boughs on a whitewashed wall have their fitting grace. Mrs. Comyns Carr, in "North Italian Folk," describes the ceremony:—

"On Monday the market of San Domenico begins to be filled with peasants who bring palms from the Riviera, and by Wednesday the long leaves are ready bleached to be fashioned into the wonted curious shapes; for they may not remain green as nature bade them. By some process handed down from past generations they are dyed of a faintly yellow colour, that they may the better last unshrivelled from Eastertide to Eastertide again for sacred guards and memories. The market-place, always a wondrous scene of confusion and vociferation, is now more perturbed than ever. The palms are set up in queer water-tubs, whence they are taken one by one to be rapidly transformed

into fantastic shapes beneath the swift hands of girls who have grown deft in the art of flower weaving for which Genoa is specially famous. The women split the slender fibres asunder, and then braid them together again and build them up in a strange medley of loops and bows, from whose midst one spray of the natural leaves is allowed to wave; at last they fasten little patches of gold-leaf upon the plaits, and stick a bit of olive-branch coquettishly on one side. The making of the *palme* is a true example of Italian taste, that loves nothing so well in its natural as in its artificial state. Flowers grow with little tending and have beauty enough; magnolias and pomegranates, camellia and oleander trees, bloom each in turn throughout the land, and never fail in their perfection, and still the people have no higher praise for the fairest blossoms of their glens and their gardens than the words, "They are as good as false ones!"

As the days wear on—Thursday, Friday, Saturday—customers grow frequent on the market-places, and inevitable vociferations wax more eager as the sale progresses:

'That palm there, with the golden leaf, how much good woman?'

'Forty-three *soldi*.'

'Holy Virgin, you would rob the Lord Almighty Himself! I will give you thirty-five!'

'Not for the world. I would sooner present it myself to San Lorenzo.'

And so the bargaining goes on for perhaps half an hour, until the prize is carried off for some two or three centimes more than the first sum offered by the purchaser. No Genoese marketer would dream of buying at the price demanded, nor a seller of asking at first the price he means to take at last. . . .

The crowds wend their way through the town to the different churches, and now before the ducal palace they begin to grow denser than ever, for this is the way to the cathedral, where the Archbishop of Genoa is to bless the palms himself at high mass. The great steps of the Duomo are covered

with the multitude; the people press up them between the carven lions, through the beautiful gateways and stand thickly packed beneath the central arch, where St. Laurence lies stretched on the torturing irons, and still other people are fighting their way through the piazza, and keep pouring in from the back street. Boys and girls, men and women, mothers with swaddled infants, children that can barely walk alone and that have to be perched on the great lions which flank the steps of the Duomo, that they may have a chance of a sight of the procession; old women with ugly faces, who seem to be the more devout for their ugliness; men, of whom many make but a poor show even of outward respect—all are jostled together upon the steps and in the entrances; and within the church's aisles more people again are moving.

The chanting and preaching begin within, varied now and then by the rise and fall of barely suppressed voices throughout the nave. Then the procession comes forth—banner and images, and crowds of children bearing their white palms. The priest's monotone continues within, and the procession outside makes answer. Its flag-bearers knock upon the gates of the church, and then the palms and the banners enter again. There is more of the ceremony, but even the people attend but sparingly to it. The crowd lingers awhile; some kneel on the steps to pray, some enter the cathedral as best they can for benediction; many more wait about outside and talk and laugh and gesticulate, but when mass is done, mothers and fathers claim their children from out the procession, and the multitudes disperse quietly.

The day's afternoon is spent in the public ways and the public gardens. Perfect enjoyment for an Italian is the enjoyment of idleness, and he wears it with a graceful sort of sincerity. Day sinks into darkness, but the cafés are still open. The fire must not die out too soon, since with the morrow fasting must begin again.

So, amid laughter and jollity, *La festa*

delle Palme sinks away with everything else that is gone into the past things of the year."

Here is an account of the ceremony on Shrove Tuesday:—The first of the merry-makers has appeared. He is a buffoon, with tawdry costume and hideous mask. He is of the people, and comes along on foot, hurling jests and poisonous comfits around him; but all the more the people are amused; they hoot and cheer, and so he passes down the ranks. He is quickly followed by another mask, also of the people; but this one drives a donkey in a small cart; he is ill-dressed with a purpose, he screams, he gesticulates, he is evidently the caricature of some pet grievance, for the mob cry aloud for joy. But this is not the *Corso*; this would not content even the populace—great things are coming. Ladies of the nobility—beautiful, with hair dressed after the French fashion, and silken garments and graciously-smiling faces—begin to fill the balconies. They nod and laugh and pose gracefully to their attendant gallants; then they rise in their seats to pose and laugh again to other gallants who are in the masquerading throng beneath, and upon whom they will shower comfits and flowers and smiles alike, to get comfits and flowers in return; for the *Corso* is all alive now.

It is four o'clock and past. On the lower ranges of balconies, windows of offices, and less important houses, the ladies of the merchant class are airing themselves likewise in scarce less costly array, to get what attention they may from masqueraders in their own set; while servant wenches and shop-girls, who aspire to no post at a window, and are proud in the possession of a black silk apron, a *pezzotto* veil, and a little gold for ornament, parade the street happily on the arm or in search of a lover. The air is laden with colour, and every turn of the beautiful winding street flashes out some new bit of it, in waving banner, fluttering drapery, or passing throng.

The great car of the afternoon is coming.

Most of the cars have been out before at the Sunday *Corso*, but this one has reserved itself for the last of the Carnival—it is the feature of this Martedì Grasso (Shrove Tuesday). People shout along the street, and heads are all turned one way from out the windows. It is in sight—a ship amid wavy billows of blue silk for sea; it sways as the car moves. "'Tis truly natural!" yells the mob, and cheers. The ship's bulwarks are of silver, its sails of rosy silk and golden tinsel; its masts are manned with sailors in handsome garb, whose masks counterfeit handsome faces. It is pronounced a wonderful success. From the balconies flowery missiles fly swiftly, to light daintly where they will—most often where the fair markswomen themselves will *not*! And the handsome sailors pelt back again, pelt on all sides, pelt the ladies with flowers, the children with comfits, the mob with *coriandoli*, that, being made only of flour, burst as they fall, to sprinkle their prey with a white storm of dust. It is a scene of the maddest, merriest confusion. But the sailors have been recognised by balcony ladies, pelted by mob admirers, appreciated by all. The ship moves on to give place to some other part of the pageant. Carriages follow closely on one another between the lines of the crowd; they are all filled with masqueraders—boys in clown dress, in Masaniello dress, as harlequins, as marquises; little girls as shepherdesses, as vivandières, powdered countesses; fathers and mothers in dominoes for escort. Out of every carriage somebody pelts and cheers to be cheered again; and now and then comes a more elaborate car, on which the mob are scarce restrained from falling for very excitement.

Il Signor Giordano (the great man-milliner), we learn from the same high authority, is a great man in Genoa. He has the largest shop for the novelties of fashion, and is moreover almost the only one of the first *negozianti* who go to London as well as to Paris for spring and autumn modes. On the other hand, he is not *too* expensive! He has his own interest at

heart, of course, but he thinks to further it better by a judicious lowness of price than by an assumption of foreign exorbitance, as some others do. Then he is not impervious to female flattery, and something can be done with him in this wise! The windows of Signor Giordano's shop are of plate-glass. Years ago there were no shops in Genoa that had plate-glass for windows—that had any windows at all, in fact—just as there were no *cittadine*, or cabs, in the streets, and private carriages were so few that one could tell them all apart by their liveries—just as there were no gas lanterns, but only oil lamps, in the public thoroughfares. Even now the shops that have real plate-glass windows are few enough, and those that have them so broad

and so fine as Signor Giordano are fewer still. His premises are large—large for a provincial town of Italy—and his young shopmen are civil, his goods deftly displayed in the window. All these advantages go to make the store in Via Soziglia one of the town's favourites. So to-day it is well beset with female customers—prudent and economical mammas, eager daughters, placidly lavish young matrons—who are the most acceptable of all to Signor Giordano—everybody wants some adornment, great or small, for the coming festivity. A neat brougham stops at the door, whence there steps a slim-figured and pale-faced little dame, tastefully-dressed in the latest of Paris fashions,—but we must hasten homewards.

RHEIMS AND ITS CATHEDRAL.

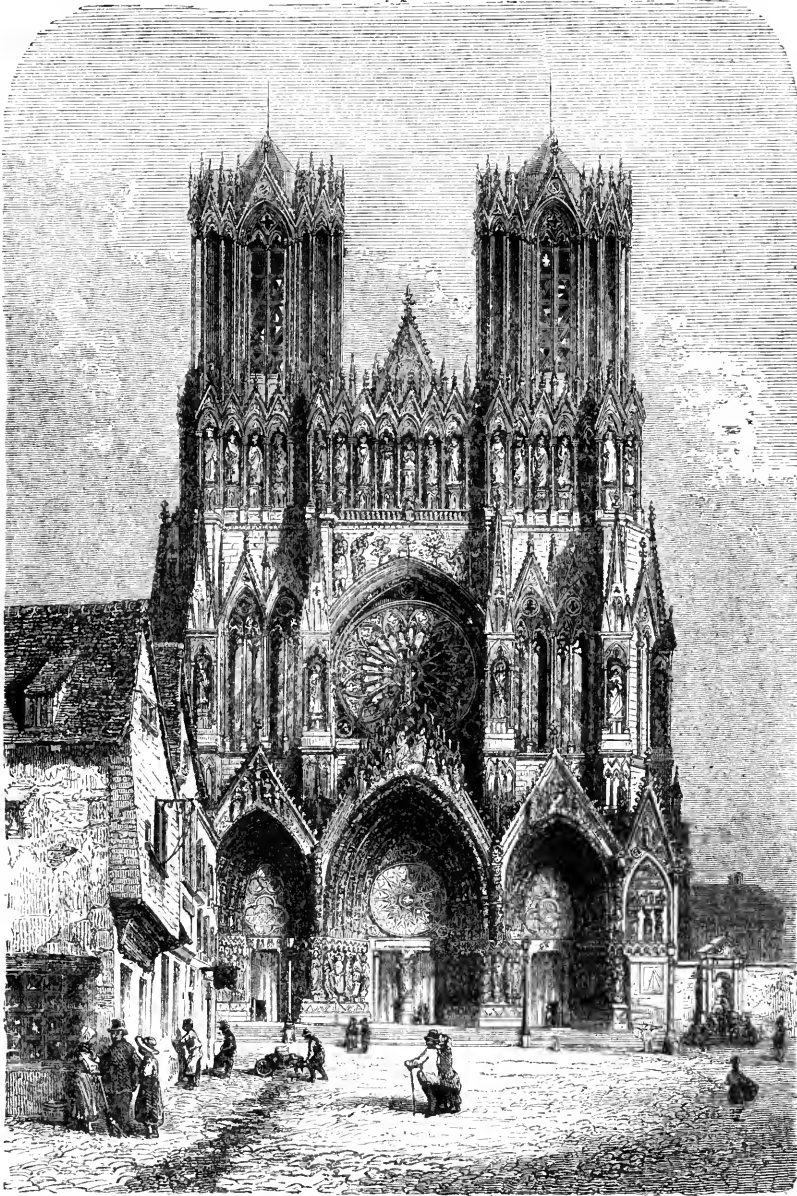
RHEIMS, the capital of the department of the Marne, stands in a plain amid vine-covered hills, on the Vesle. It is encircled by a moat and ramparts, which have been planted with trees, and now form an agreeable public walk. The four ancient gates once bore the names of Mars, Venus, Ceres, and Bacchus; the first of them consists of a triumphal arch, whose graceful Corinthian columns contrast beautifully with the Gothic structures about it. A modern gate was opened beside it in the 16th century, and another was opened in honour of Louis XVI. in 1774. Though one of the oldest towns in France, the streets of Rheims do not in general present that picturesque appearance which often accompanies antiquity, some of them, indeed, are quite modern. The houses, seldom more than one or two storeys high, have a very dull and uniform aspect.

The great glory of the place is the Cathedral of the Metropolitan See of France, which is considered by many to be the most magnificent church north of the Alps. It was built 1212–1241; but its towers are

still unfinished, so as to detract from the perfection of the building. Nothing is more striking about its exterior than the unity and harmony of the whole, notwithstanding the many statues and ornaments with which it is profusely embellished. The interior has much resemblance to Westminster Abbey, only it is bolder and simpler, much more so than the exterior; but the exceedingly brilliant painted glass in the windows throws over the whole “a dim religious light,” which supplies the place of more elaborate decorations. The Abbey of St. Remi is older than the cathedral, having been built partly in the eleventh and partly in the twelfth century; partly too at later epochs, so that it is a curious medley of different styles. Much injury, now quite repaired, was done to it at the Revolution; archbishops and nobles were torn up from its vaults, and the *Sainte Ampoule*, the heaven-descended oil-flask for anointing the regal heads of France, was publicly broken in pieces, though a fragment of it mysteriously reappeared at the coronation of Charles. The Town-hall is a handsome modern building, with a statue of Louis XIII. in front.

The Cathedral of Rheims has been the scene of the consecration of most of the French monarchs, from Philip Augustus, in 1197, till that of Charles X. Of these cere-

monies, probably none have been more interesting than that which took place in 1429, when Charles VII. was crowned here, Joan of Arc, bearing her sacred banner,

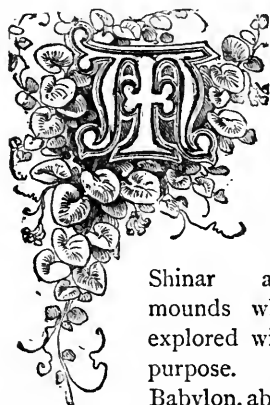


CATHEDRAL AT RHEIMS.

kneeling with tears of joy before the sovereign whom she had restored to his throne. The town was taken by the Russians in 1814; but, before they had been in posses-

sion many hours, Napoleon came down upon them, and gained here one of his last successes before victory deserted his standards.

THE TOWER OF BABEL.



ANY attempts have been made to identify the remains of the structure referred to in Genesis xi. On the plain of Shinar are considerable mounds which have been explored with a view to this purpose. On the north of Babylon, about three-quarters of a mile east of the Euphrates, is one known to the Arabs by the name of "Babel." The foundations are of burnt bricks and bitumen, as described in the Scripture narrative; but Mr. Layard's discovery upon the lowest bricks of the cuneiform superscription of Nebuchadnezzar rendered it necessary to direct attention in other quarters. About six miles south-west of Hillah is a gigantic mass of ruin, which has the name of Birs Nimroud (palace, or prison, of Nimrod), which Benjamin Tudela, writing in the 12th century, referred to as the tower built by "the dispersed generation." The mound, which is visible at a distance of several miles, is of an oblong form, 762 yards in circumference. Through the east end is a deep furrow. A tower of brickwork at the west end, the summit of which is 235 feet from the plain, has a fissure extending through one-third of its height. The vitrified appearance of the brickwork gives indication of the action of fire. Upon this site Nebuchadnezzar completed the erection of "The Temple of the Seven Lights of the Earth." The dimensions and plan of this are known, and Canon Rawlinson, regarding it as a "perfect representative of an ancient Babylonian temple tower," suggests that it supplies the most probable idea of the shape and character of the

much-discussed Tower of Babel. "Upon a platform of crude brick," according to Herodotus, "raised a few feet above the level of the alluvial plain, was built of burnt brick, the first or basement stage, an exact square, 272 feet each way, and 26 feet in perpendicular height. Upon this stage was erected a second, 230 feet each way, and likewise 26 feet high, which, however, was not placed exactly in the middle of the first, but considerably nearer to the south western end, which constituted the back of the building. The other stages were arranged similarly." The four angles faced the four cardinal points, and each stage was of a different colour, representing the seven planets. On the summit was the ark or tabernacle. In the temple of Bel at Babylon this constituted a shrine, in which stood a golden image of Bel, 40 feet high, two other statues of gold, a golden table, 40 feet long and 15 feet broad, and other articles of the same costly material; while at the base of the tower was a second shrine with a table and two images of gold. In an inscription found at Borsippa, and translated by M. Oppert, Nebuchadnezzar speaks of himself as "the repairer of the Pyramid and the Tower," adding, "As regards the building of the Seven Lights of the Earth, the most ancient monument in Borsippa, a former king originally built it, about forty-two ages ago; but he did not complete it, because at a very remote period the people had abandoned it without order expressing their words." The cuneiform tablets in the British Museum have reference to a tower, the erection of which was commenced under the supervision of a semi-divine being called Etanna, and discontinued in some very noteworthy manner. On the fragments translated by Mr. G. Smith these words are preserved:—"Babylon brought to subjection, small and great. He confounded their

speech. All the day long they continued building their high tower, but in the night He made an end of their tower entirely. In His anger He determined to scatter them abroad on the face of the earth." Bochart records a Jewish tradition that the tower was destroyed by fire, and Alexander Polyhistor refers to it as having been blown down by the winds. The expression, "whose top may reach unto heaven," is a Hebraistic hyperbole for great height; "the cities are great and walled up to heaven" (Deut. i. 28). The large scale on which such structures were erected may be gathered from the details given by Herodotus and Ctesias, according to which Babylon was surrounded by walls of dimensions entitling them to the description of "artificial mountains," being nearly of the height of the

dome of St. Paul's Cathedral. The account in Genesis connects the name of Babel with the Hebrew verb *balbel*, to confound, but it is suggested that the word when first used may have borne a different meaning—namely, Bab-el, the gate of God. The *Encyclopædia Britannica* refers to a tradition which existed in Central America, that Xelhua, one of the seven giants rescued from the Deluge, built a great pyramid, in order to storm heaven; but the gods destroyed it with fire and confounded the language of the builders.

A similar legend, according to the report of the census of Bengal, existed in 1872 among the Mongolian Tharus in Northern India; and Dr. Livingstone also found traces of it among the Africans of Lake Ngami.

NIAGARA FALLS.

THE first European who ever described Niagara Falls, was Father Hennepin, a Franciscan missionary in Canada, in the last part of the seventeenth century, who made a journey towards the region of the Great Lakes. Here is the passage in which he describes Niagara:—

"Betwixt the Lakes Ontario and Erie there is a vast and prodigious cadence of water, which falls down after a surprising and astonishing manner, insomuch that the universe does not afford its parallel. 'Tis true Italy and Sweedland boast of some such things; but we may well say they are but sorry patterns, when compared to this of which we now speak. At the foot of this horrible precipice, we meet with the River Niagara, which is not above half a quarter of a league broad, but it is wonderfully deep in some places. It is so rapid above the descent, that it violently hurries down the wild beasts while endeavouring to pass it to feed on the other side, they not

being able to withstand the force of its current, which inevitably casts them down headlong, above 600 feet.

This wonderful downfall is compounded of two great cross-streams of water, and two Falls, with an isle sloping along the middle of it. The waters which fall from this vast height, do foam and boil after the most hideous manner imaginable, making an outrageous noise, more terrible than that of thunder; for when the wind blows from off the south their dismal roaring may be heard above fifteen leagues off.

The River Niagara having thrown itself down this incredible precipice, continues its impetuous course for two leagues together to the great rock above mentioned, with an inexpressible rapidity; but having passed that, its impetuosity relents, gliding along more gently for two leagues, till it arrives at the Lake Ontario or Frontenac.

Any barque or great vessel may pass from the fort to the foot of this huge rock above mentioned. This rock lies to the westward, and is cut off from the land by

the River Niagara, about two leagues farther down than the great Fall; for which two leagues the people are obliged to carry their goods overland, but the way is very good, and the trees are but few, and they chiefly firs and oaks.

From the Great Fall unto this rock, which is to the west of the river, the two brinks of it are so prodigious high that it would make one tremble to look steadily upon the water, rolling along with a rapidity not to be imagined. Were it not for this vast cataract, which interrupts navigation, they might sail with barques or greater vessels above four hundred and fifty leagues farther, cross the lake of Huron, and up to the farther end of the Lake Illinois; which two lakes we may well say are little seas of fresh water."

Then he tells how *Sieur de la Salle* intended to build a fort, to keep in check the Iroquese and other savage nations, and to form a commerce in skins of elks, beavers, and other beasts for the English and Dutch in New York.

The frontispiece of *Father Hennepin's* book is a view of the Falls as he saw them, a copy of which we give. It will be observed that the line of the Great Fall is straight, not curved as now into the form which has given it the name of the "Horseshoe Fall." The form of the cataract is slowly but constantly changing. The reason is to be found in the geological formation. The rocks are partly shale and partly limestone. The former is more readily worn by the water and the frosts, and moulders away more rapidly than the harder limestone. The rate of recession has been calculated, and the time must come sooner or later when the cataract will approach the upper lakes, and the length of the Rapids diminish. As it is, there are from time to time huge avalanches of falling rock, which already accumulate at the base of the Falls, especially on the American side. At some places the *débris* rises nearly a third of the height of the water, reducing greatly the apparent size of the Fall; but the vast volume of water, and

the beauty as well as grandeur of the scene, still keep Niagara at immeasurable distance as the greatest of waterfalls.

Dickens has well described his first impressions of Niagara:—

"It was a miserable day; chilly and raw; a damp mist falling; and the trees in that northern region quite bare and wintry. Whenever the train halted, I listened for the roar; and was constantly straining my eyes in the direction where I knew the Falls must be, from seeing the river rolling on towards them; every moment expecting to behold the spray. Within a few minutes of our stopping, not before, I saw two great white clouds rising up slowly and majestically from the depths of the earth. That was all. At length we alighted; and then for the first time I heard the mighty rush of water, and felt the ground tremble underneath my feet.

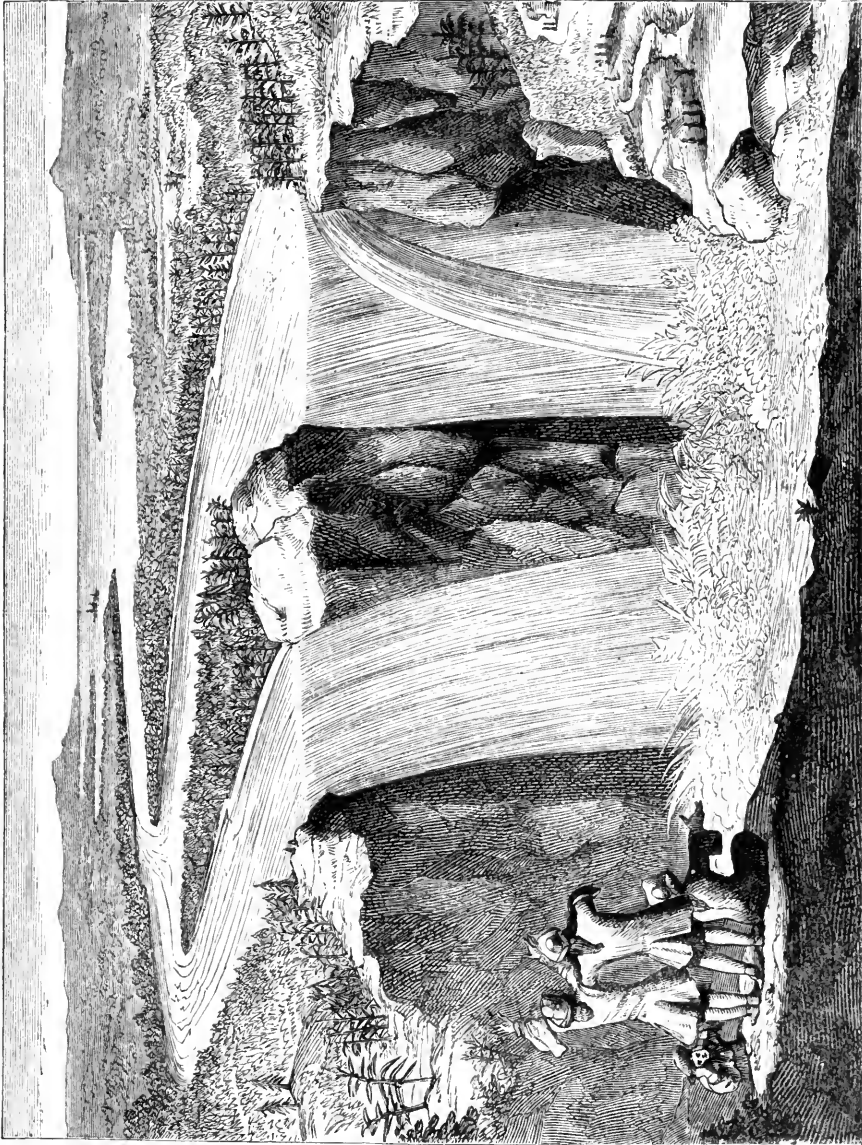
The bank is very steep, and was slippery with rain and half-melted ice. I hardly know how I got down, but I was soon at the bottom, and climbing, with two English officers who were crossing, and had joined me, over some broken rocks, deafened by the noise, half-blinded by the spray, and wet to the skin. We were at the foot of the American Fall. I could see an immense torrent of water tearing headlong down from some great height, but had no idea of shape, or situation, or anything but vague immensity.

When we were seated in the little ferry-boat, and were crossing the swollen river immediately before both cataracts, I began to feel what it was; but I was in a manner stunned, and unable to comprehend the vastness of the scene. It was not until I came on Table Rock, and looked—Great Heaven, on what a fall of bright-green water!—that it came upon me in its full might and majesty.

Then, when I felt how near to my Creator I was standing, the first effect, and the enduring one—instant and lasting—of the tremendous spectacle, was Peace. Peace of mind, tranquillity, calm recollections of the Dead, great thoughts of Eternal Rest

and Happiness : nothing of gloom or terror. Niagara was at once stamped upon my heart, an Image of Beauty; to remain there, changeless and indelible, until its pulses cease to beat, for ever.

Oh, how the strife and trouble of daily life receded from my view, and lessened in the distance, during the ten memorable days we passed on that Enchanted Ground ! What voices spoke from out the thundering



NIAGARA FALLS, AS SEEN BY FATHER HENNEPIN IN 1677.

water ; what faces, faded from the earth, looked out upon me from its gleaming depths ; what Heavenly promise glistened in those angels' tears, the drops of many hues, that showered around, and twined

themselves about the gorgeous arches which the changing rainbows made !

I never stirred in all that time from the Canadian side, whither I had gone at first. I never crossed the river again ; for I knew

there were people on the other shore, and in such a place it is natural to shun strange company. To wander to and fro all day, and see the cataracts from all points of view ; to stand upon the edge of the great Horseshoe Fall, marking the hurried water gathering strength as it approached the verge, yet seeming, too, to pause before it shot into the gulf below ; to gaze from the river's level up at the torrent as it came streaming down ; to climb the neighbouring heights and watch it through the trees, and see the wreathing water in the rapids hurrying on to take its fearful plunge ; to linger in the shadow of the solemn rocks three miles below ; watching the river as, stirred by no visible cause, it heaved and eddied and woke the echoes, being troubled yet, far down beneath the surface, by its giant leap ; to have Niagara before me, lighted by the sun and by the moon, red in the day's decline, and grey as evening slowly fell upon it ; to look upon it every day, and wake up in the night and hear its ceaseless voice : this was enough.

I think in every quiet season now, still do those waters roll and leap, and roar and tumble, all day long ; still are the rainbows spanning them, a hundred feet below. Still, when the sun is on them, do they shine and glow like molten gold. Still, when the day is gloomy, do they fall like snow, or seem to crumble away like the front of a great chalk cliff, or roll down the rock like dense white smoke. But always does the mighty stream appear to die as it comes down, and always from its unfathomable grave arises that tremendous ghost of spray and mist which is never laid ; which has haunted this place with the same dread solemnity since Darkness brooded on the deep, and that first flood before the Deluge—Light—came rushing on creation at the word of God."

We are reminded of Livingstone's simple but grand description of the Victoria Falls of the Zambesi River—the spray-clouds seen

from afar fixing his attention and wonder ; and of the account of a more recent traveller, Mr. Mohr, which is in a high degree fresh and picturesque. He says, "The majestic river (the Zambesi), a mile wide, comes down from the north-north-west, and flings its waters down four hundred feet into a rocky ravine, varying in width from two hundred and forty to three hundred feet, which runs across its bed. From the river above the falls rise many islands, all adorned with the richest tropical vegetation. The banks are covered with vast, but not dense, forests, in which occur whole groups of tall-stemmed palms, giving a thoroughly southern character to the scenery. Near the Falls the water hurries along with flying speed, and the long ribbons of foam everywhere to be seen make it look as if it were boiling.

Near the western brink lies a little island, about a hundred and twenty feet from the bank, and here the bed of the stream seems to dip suddenly, for the water leaps down with a roar and a rush like a sea wave. At this point, quite at the western corner, a ridge of rock juts out, on to which any one not subject to giddiness can step, when he will have, on the left, the view just described, and in front the long line of the great cataract, which can, of course, only be partially seen, for the compressed air drawn down with the flood, and filled with drops of water, escapes continually, and rises in eddies, producing the spray clouds, which gleam like sceptres far above this great 'altar' of the waters. After looking down for some time into this raging, leaping, foaming, heaving chaos, deafened by the terrible noise of the maddened waters, and shaken by the menacing howl rising up continuously from the depths, which seem to pierce through bone and marrow, one wonders how the rocks, those hard ribs of the earth, can withstand the shock of such a mighty onset."

A SUNDAY IN QUEENSLAND.



THROUGH the valley, past pleasant cottages, large and small, mostly presenting signs of material prosperity; past more pretentious suburban retreats, homes of wealth and refinement, which are perched on "eligible sites" overlooking the winding river; over the creek, along dusty roads; past houses of refreshment for man and beast, and so on into the bush. The stranger from another colony will soon recognise that, although still in Australia, he is in a different climate, where nature assumes different conditions. In spite of the long drought, the cottage gardens are luxuriant with flowers; swaying clumps of bamboos adorn the grounds; broad banana leaves shielding bunches of ripe fruit, please the eye with cooling green—there is everywhere a variety of colour and form. The Victorian bush is generally composed of mile after mile of sad monotonous-looking gum trees, ugly in themselves, and the cause of much melancholy to the unhappy wayfarer. Here it is far different; the *flora* seems almost as varied as in America. The red dust of the road reminds one of California, and the tracks wind in and out through the bush as in Virginian forests. I can almost imagine myself riding once more on the banks of the James, the Appomattox, or the Roanoke. Everything is calm and peaceful—too much so perhaps; the stillness of the Australian bush, soothing at first, in time becomes oppressive, and tends to madness. There is not a sign of animal life, and the cottages of selectors, which we now and then pass, are all surrounded by a Sabbath quietness. And so on, through miles of bush and solitary road, we at last emerge on to the Bluff, which commands such a splendid view of

Moreton Bay and makes Sandgate healthy and attractive. Two good hotels, butchers', bakers', grocers', and other stores, and numberless pleasant private residences, make Sandgate quite a place. The prospect is certainly lovely. A turquoise sky above, the placid ocean beneath, the islands toned down by distance into peaceful masses of light and shade—what reck we now of the prisoners pining at St. Helena, or the "benevolents" wearing away their days in Dunwich? In the offing is an emigrant ship. Our new colonists on such a day as this must have pleasant first impressions of their new home. It is the perfection of climate and existence, and, lying Hamlet-wise under a shady tree on the Bluff, I desire nothing better than to dream away the day, with one sweet companion to play Ophelia.

There are many small picnic parties scattered about. A farmer's family arrives in a spring cart, drawn by a stolid-looking horse, which is presently led past us by the matron in search of stray bunches of grass. St. Kevin and his company of interesting and vivacious young colonists are conspicuous. There are vehicles more pretentious around, and empty champagne bottles are scattered about. Little children with bared legs paddle in the water on the beach. Married couples stroll about—madame irreproachably dressed, whilst monsieur is often only attired in the free Queensland fashion of pants and white shirt. The head of the family sports with his offspring, and with the (in this weather) over exuberant energy of the Anglo-Saxon, dances a hornpipe on the stump of a tree. All these I hope are renewing their health under the influence of the pure air and cooling breeze. Sandgate is evidently a popular place, but its distance from Brisbane now prevents its being the holiday resort of the many. In time, however, I suppose there will be a pier, and

steamers running down the river, and perhaps the iniquity of Sunday excursions. Then will arise new rows of cottages, and a fashionable church, and an assembly-room for balls and entertainments. This will be the Brighton, Longbranch, and Sorrento of Brisbane. It will be a good thing for Sandgate and for general health and pleasure-seekers, but those days will never present to me such attractions as this. The newest style of cottage architecture pleases me not; I can exist without a fashionable church, and balls are an abomination in my eyes. The very ugly primitive bathing-huts on the beach satisfy me, and I want not model baths with extra charges. I like to lie under a tree and lazily pick shells and flowers which, perchance not rare here, are strange and precious to the stranger. And I like to watch the harmless lizards and insects which play around or investigate the new chums, to the horror of shuddering womanhood. These primitive and harmless pleasures soothe me, and I love the Sandgate of the present, with its simplicity and absence of "style," and easily obtained solitude. In days to come, however, I see that one will have to retreat to the mangroves on the shore, if one wishes isolation. I would scarcely advise this, as the odours of that tree are not quite as healthy as those of the pine.

We dined late at the Royal, and had a very good meal, and the bill, I suppose, was a very good one also. Our waiter "Tommy" was a clean, pleasant-looking Chinese boy. His smiling face and anxiety to do everything properly I shall always remember with pleasure. Downstairs some Welsh hymns were being chanted, but authority in the shape of a Sabbatarian policeman interfered with "I won't have any of that row here!" He nearly caused a "row" by his unnecessary interference. At dusk Sandgate for a short time presented quite a gay appearance, as the vehicles containing the holiday-makers, one after the other, drove away. We were the last to depart. The drive

back through the bush was charming. The moon shone full and clear on the road, and gleamed through the trees on each side, which assumed weird, fantastic, and grotesque shapes. Before we got to Breakfast Creek we saw a glorious sight, a real bush fire, which was a novelty to one of the party. I have seen forest fires in America which far surpassed anything you can produce in that line here. Still this was interesting. The fire appeared to extend over a mile, and lighted up the whole district. As one got nearer, the flames could be seen licking their way up the tall gum trees, which presently became one glowing mass of fire. Hundreds of men were beating down the burning grass, and endeavouring to stop further damage. It was lucky, however, that the creek lay between the conflagration and several houses and cottages near. Our coachman, Charles, said it was the largest fire he had ever seen or heard of around Brisbane. "It's a good thing, too," he philosophized; "the paddocks over there were full of snakes, and it will drive them out." "Where will they go to?" I asked. "Oh, they'll swim across the creek all right, and it'll make it worse for them as is living on this side." "Why do you say it is a good thing, then?" was my natural query. "Well, you see, sir, I often has to go to them paddocks after hosses," replied Charles the philosophical. "I don't like snakes," he continued. "One of them got into this very carriage one day I was driving out a lady and gentleman, as it might be you, and I took it all the way home, and never found it out till it coiled round my boot." This was encouraging to new chums, so I begged Charles not to give us any more snake stories, but to make haste home. It would make a good story if we had found a snake in our carriage, but, as a truthful narrator, I am sorry to say that no further exciting incident happened *en route* to Brisbane, which we reached with mind and body benefited, after spending a Sunday at Sandgate.

COLOGNE AND ITS TOWN-HALL.

THE town-hall is a curious old building, but remains unseen by many a sight-seeing English traveller, who, after visiting the incomparable cathedral and a few of the most remarkable objects, is doubtless anxious to escape from the odours which come forth in torrents from the black, muddy pools in the gutters. Stirred up by the besoms of maid-servants, these stagnant abominations emit a stench that the hogsheads of Eau de Cologne yearly manufactured in the town would scarcely be able to counteract. The building, too, from its situation, escapes the observation of all but the inquisitive traveller. The upper octagon portion of its tower—the lower part being square—may be seen at a distance, lording it over the crowded masses of brick and slate; but, on a nearer approach, it vanishes from the sight, and some skill is required in threading the labyrinth of narrow lanes and alleys that lead to it.

Let us descend into the streets, and see this "curious old building." Few towns of its size present so animated an appearance as Cologne on a summer's evening. The principal thoroughfares are a complete *multum in parvo* of animal life. Being only just wide enough to admit of one vehicle passing another, the foot-passengers are ever on the *qui vive* to avoid an unpleasant proximity to horses' legs and carriage-wheels, and have acquired a habit of springing aside with an agility which gives an air of great liveliness to the crowded streets. Even where there are few vehicles the inhabitants are not without practice in jumping, the gutters and crossings, in some parts of the town being seldom without the above-mentioned pools. The whole dirt of the town has no other channels by which it can reach its destined reservoir.

Englishmen, of course, are not wanting :

and greatly do they add to the variety of the scene. We are now in the Jülich's Platz. See, there is an Englishman standing in the street with a book in his hand. It is "Murray's Hand-book." He is looking round at the four or five "*Plus anciens distillateurs de la véritable Eau de Cologne*," that are within view, in search of the real Simon Pure. He seems a little puzzled, for they are all either *in, by, near* or *close* to, the Jülich's Platz. He has found it at last, and enters to make his purchases at No. 23, *opposite* the Jülich's Platz. He has been to the cathedral, of course, and to St. Peter's Church, in order to see the celebrated Crucifixion of St. Peter, by Rubens, because Sir Joshua Reynolds went from Dusseldorf to Cologne on purpose to see it; nor has he forgotten the bones of the eleven thousand virgins at St. Ursula's; but he does not go to the Rathhaus, for he only visits what Murray states as especially worth seeing. He would almost rather sleep in the streets than go to an inn not recommended by this infallible guide.

But we must turn down this street to the left; it is called Unter Goldschmid. See, there is another Englishman, with his wife and daughter. The young lady is inquiring her way to the cathedral, and the stout old gentleman seems not a little annoyed that she can neither understand, nor make herself understood, which he thinks very strange, considering the sums he has paid Herr Hermann Lövemuth for private German lessons for her. He is evidently one of those who have always "no time to lose," and he would not be able to see the Rathhaus even if he knew of it and wished to see it. Cologne to-day, Bonn to-morrow, Coblenz the next day, and so on till he arrives again at that celebrated starting-place for Continental travellers—Cornhill.

One more turn to the right, down this narrow alley, and we arrive at a large open

court, called the Rathhaus Platz, where the eye at once falls upon the beautiful marble portal, which every connoisseur must recognise as a masterpiece of architecture. It consists of a double arcade, one above the other, the upper one being in the Roman style, the under one in the Corinthian. On the space between the arcades are three tablets with bas-reliefs. To the left is Samson in the act of tearing asunder the jaws of the lion; to the right, Daniel in the lion's den; and in the middle, the redoubtable knight, Hermann Gryn, burgomaster of Cologne, in the act of plunging his sword into the breast of a lion, his left arm protected by his cloak, being thrust into the animal's mouth. Some inquirers into the authenticity of legends have dared to doubt that the incident here recorded in stone ever took place, but apparently without sufficient grounds; for it is neither impossible nor improbable, and it is recorded by the old chronicles of the city. Be this as it may, the inhabitants of Cologne have ever shown themselves too faithful believers in more extraordinary events than this, not to put implicit faith in every word related by the chronicler.

The interior of the Rathhaus presents but little to interest the stranger. In the ante-room of the council chamber are allegorical pictures, representing different epochs in the history of Cologne, the figures being clad in the costume of the painter's time. In the simple council chamber are to be seen the words, "Hear the other side also;" which seem to have had little influence on the judges who distributed there but too often a one-sided justice.

The incident which we have more particularly undertaken to record happened about the middle of the thirteenth century, in the palmiest days of Cologne, then, perhaps, the first city of Germany, not excepting even Vienna. It contained 150,000 inhabitants, and, upon an emergency, could send 30,000 fighting men into the field. It was the great mart of commerce for the centre and north of Europe, and not the least

important town of the great Hanseatic league, which it joined in 1201. In London, it possessed Whitehall, which was the depôt of its wares and manufactures. An idea of the extent of the latter may be gained from the fact that, at about the time we speak of, 80,000 looms were in activity, and it is recorded of the authorities that, in order to punish the weavers for their participation in a rebellion, 17,000 looms were destroyed at one time, a devastation which laid the foundation of the manufacturing greatness of Elberfeld and several of the adjacent towns. "Commerce was the watchword of our forefathers," says a Cologne writer.

But not less celebrated at that time was Cologne as the principal residence of the Christian Metropolitans, whose diocese extended over the whole domain of the Rhine between the Scheldt, the Meuse, and the Weser. Its religious establishments equalled in number the days of the year, and obtained for it the appellation of the Rome of the North. At that time, too, the appearance of the town itself may have justified the old saying,

Coellen ein kroin,
Boven allen steden schoin,
Cologne a crown,
Fair 'bove every town.

But the modern traveller who should agree with this adage, must possess an original, at least, if not a very eccentric, taste.

Cologne was also the cradle of learning and the fine arts, the seat of the oldest university in Germany, and now—"oh, what a falling off is there!" To what a degraded state did hatred of innovation, intolerance, misunderstood freedom, prejudice, and priestly domination, reduce it in the course of a few centuries! Its manufactures transferred to Elberfeld, Solingen, Crefeld, and other towns; its fine arts to Dusseldorf; groaning under the burden of an idle priesthood, Cologne at one period of the last century contained scarcely as many inhabitants as it had once sent soldiers to the battle-field.

"In 1248," says the chronicle, "Conrad von Hochstetten, rich beyond measure in gold, silver, and precious stones, so that he thought his treasures inexhaustible, began the great, costly cathedral, which is still building in this the year of our Lord 1499." He was followed on the episcopal throne, in 1261, by his nephew, Engelbert von Falkenburg, in whose reign flourished the renowned burgomaster of Cologne, Hermann Gryn. Conrad von Hochstetten was at constant war with the citizens of Cologne. This war had arisen respecting the coinage of money; but under him and the two following bishops it became for the burghers a war of liberty, and bravely, indeed, did the warlike inhabitants defend themselves against their powerful and despotic spiritual rulers.

A few years after his accession to the throne, Engelbert besieged Cologne with a large army; but the Bishop of Liege, and his brother, Count Otto of Guelders, endeavoured to make peace. After some parley, it was agreed that the town should pay the bishop six thousand marks, and that the latter should take oath to preserve the freedom and immunities of the city as prescribed by the laws of the empire, and confirmed by the emperor's seal.

'Though it is difficult for me,' said the Bishop of Liege, 'I will nevertheless faithfully keep my word;' and he did keep it until he found a favourable opportunity of breaking it. It was during this temporary reconciliation that the crafty bishop be-thought him of a plan to get rid of his most inveterate and formidable enemy, the burgomaster, Hermann Gryn.

Gryn was not, like modern municipal rulers, influential only at the council-board; he was a knight, and as valiant in the field as a lion. None had ever stood up so boldly to defend the rights of the citizens against the wiles and treachery of an aspiring priesthood. Hence Gryn was beloved by his fellow citizens; and, when the halberdiers of the bishop would, with a look of contempt, rudely push aside the peaceful citizens, and call to them to make

way, many a tongue whispered with suppressed anger, "Take care, ye haughty despisers of the people! The tables may turn! We still have a Gryn to defend our rights!"

Wild beasts were sometimes transmitted, as presents, in the Middle Ages. The bishop had lately received a lion, which he gave in charge to two of the prelates of his cathedral to keep and feed for him. He instructed them to let the beast fast for several days, that hunger might make him furious, and appointed a day on which they were to invite Gryn to a banquet, as a token that the recent reconciliation between the superiors of the Church and the citizens was sincere. The two worthy servants of such a master faithfully executed his instructions, which they did the more readily as they bore personal hatred to Gryn, who was always opposing difficulties in their way when they had to execute the orders of their superior.

Gryn was an honest man as well as a brave one; he, therefore, suspected no treason, and readily accepted the invitation. When the appointed hour arrived, he donned his large heavy bonnet, with its long plume, girded his short sword on his side, drew on his stout leather gloves, threw his long purple mantle over his shoulders, and descended into the street. His tall noble figure was soon recognised by the honest burghers. Their good wives, too, as they caught a glimpse of him through the shop windows, ran to the door to have a longer look at his receding form; and happy did he deem himself who was able to meet him, and, in answer to the doffed cap, obtain a smile from that noble and honest countenance. Some of them followed him even to the house of the prelates, and left him only when, in answer to his loud knock at the portal, the door was opened by a monk, and the worthy burgomaster disappeared from their view.

He was ushered into the presence of the prelates, who received him with gracious smiles.

"Welcome, worshipful Herr Burgo-

master," said the one. "Thanks for this joyful meeting, which is a guarantee for the long duration of peace and concord in our holy city."

"Amen," responded the burgomaster, sturdily; "these brawls and fightings do indeed destroy our commerce, and ruin the prosperity of our citizens."

"As long as the worthy knight and burgomaster Hermann Gryn holds temporal sway over the faithful burghers of our city, we need be in no fear that they will revolt against their spiritual ruler, and refuse the fulfilment of the promises they have sworn to perform."

"That they never will, reverend father," answered the burgomaster, "so long as you, on your part, overstep not the bounds which you also have sworn to preserve."

The prelate bit his lip; and had the unsuspicious knight seen the expression of hate which lighted up the eye of his host, he might have felt that treason was lurking beneath it.

"Your worship has doubtless heard of the noble lion which we have here," said the priest; "a noble animal it is, from Africa; a present to our noble master, the archbishop. Ere we conduct you to the festive board, do us the honour to accompany us, and see the noble beast."

"Willingly; lead on, reverend sirs," said the knight. The prelates led the way across the hall to an inner apartment.

"One more room—there, that is the door," said one of his conductors. Then motioning the knight to enter, he added—"The animal is chained; enter without fear."

As the knight opened the door, one of these holy fathers of the infallible church gave him a violent push that sent him headlong into the room. The door closed, the key turned in the lock, and the loud laugh of the prelates revealed to the knight the treason that had been practised on him. With a terrific roar, that would have cowed

a less stout heart than Gryn's, the lion sprang up. The knight had scarcely time to raise himself. Holding his huge bonnet in his left hand, with the rapidity of lightning he loosed his mantle from his shoulders, and, with a sudden whirl, wound it round his left arm, drawing at the same time with his right hand his short stout broadsword. He had scarcely time to prepare before the savage beast was upon him. Thrusting his left arm, thus protected with his bonnet and cloak, into the lion's mouth, he plunged his sword into the animal's breast, and laid him dead at his feet.

"Ye knavish priests," he murmured between his teeth, as he gazed at the dead animal at his feet, "ye shall reap your reward for this."

The lock of the door soon gave way before his nervous arm; and, before the inmates of the house had time to discover the ill success of their machinations, the bold burgomaster was in the street.

History seldom records a quicker act of retribution than now followed. In less than half an hour after his escape, the two prelates were hanging by the neck from the beams of the cathedral cloister door, which from that hour was called the Pfaffenpforte, or gate of the priest.

"There let them hang," said Gryn, "as a warning to all those who may meditate acts of treachery against the brave citizens of Cologne."

But, alas! priestly treachery and ambition still remained the order of the day.

Bishop Engelbert broke his vows, made new ones, violated them again, and never ceased oppressing the citizens till death put an end to his career.

In memory of the above recorded event, a representation of Gryn, in the act of stabbing the lion, was placed over the entrance gate of the Rathhaus, but it has since been renewed, for the present tablet is of comparatively modern date.

STRASBURG CATHEDRAL.

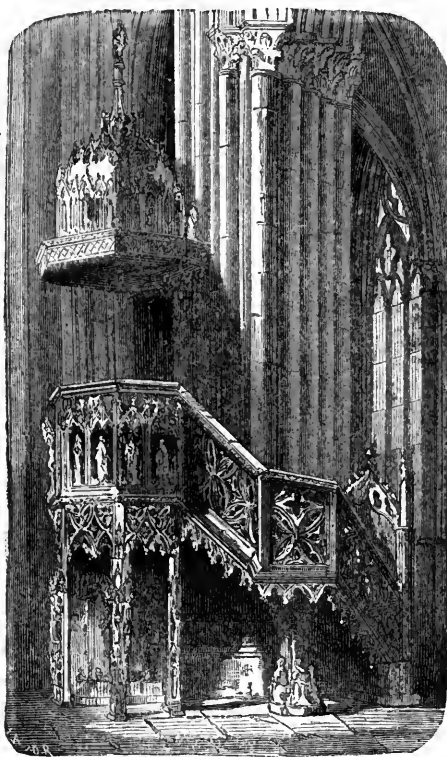


THE history of the cathedrals of the Middle Ages is intimately blended with civil and national history; most of the ecclesiastical triumphs and ceremonies, and many of the most important political events, were celebrated within their walls. The cathedral has usually been the place where the crown has been put on the brow of monarchy; and when power has been snatched from the tyrant's hand, the cathedral has generally witnessed his humiliation. So that to read the history of these time-blackened and venerable piles, is to read the history of the nation by whom they were erected.

Amongst these edifices, the cathedral of Strasburg has always held proud rank. The town itself has had an awful eventful history. In the earliest ages of which any record is preserved, it belonged to the Germanic kingdom of Austrasia. In Roman days it was called Argentoratum. Here Julian defeated the Allemanni, in A.D. 357. In 1681 it was taken by Louis XIV., who much enlarged and improved its fortifications, till it was reckoned one of the strongest places in Europe. By the Treaty of Ryswick it was confirmed to France, and

might have formed an integral portion of the French Empire to this day, had not the mad ambition of Napoleon III. precipitated a conflict with Prussia, which ended only in his total ruin, and the loss of the town of Strasburg, together with the surrounding country. While Strasburg was still in French possession, it was the scene of several striking historical

events. Here, in 1836, Prince Louis Napoleon, afterwards Emperor, aided by some officers, attempted an insurrection, which was suppressed, and the Prince shipped off to America. Its subsequent history is well known. During the war in 1870, the cathedral, with the rest of the town, suffered greatly from bombardments. The lofty tower was much injured, and the roof burnt. Since it has passed into German hands, however, every care has been taken of it, and it promises, the danger of fire apart, to stand for the admiration of our posterity, as it has



PULPIT IN STRASBURG CATHEDRAL.

stood for that of our ancestry.

Amongst the architectural glories of Strasburg cathedral may be particularly mentioned the elaborately beautiful pulpit, of which our illustration gives a very graphic idea; but nothing short of an actual sight of the structure itself can demonstrate its marvellous beauty.

FIFTEEN THOUSAND MILES ON THE AMAZON.



IN the autumn of 1873, two civil engineers, named Brown and Lidstone, were sent out to Brazil by the Amazon Steam Navigation Company of London, for the purpose of selecting and reporting upon certain territories which had been allotted to the said company, on the banks of that mighty river and its tributaries, by the Brazil Government. The task occupied them nearly two years, in which time they covered more than fifteen thousand miles, so that it is quite obvious that they must have been blind and deaf indeed if they had not something fresh to tell.

Para, in one respect, is even more advanced than England itself, for it has a tramway that goes by steam. It is thus described :—

“The streets are not imposing, being full of deep ruts, and for the most part unpaved. Some of them are made almost dangerous for carriages and foot-passengers, in consequence of their being traversed by the rude rails and sleepers of a steam tramway line, running from the fashionable suburb of Nazareth to an open space near the cathedral. Late one evening we took advantage of this conveyance for the purpose of testing its merits, and for our temerity sustained a severe jolting. We took our stand near the track at the corner of the Largo da Polvora, to intercept it on its homeward journey, and heard the noise of his puffing and whistling a quarter of an hour before it steamed up. It occurred to us that the thing had run off the line, thereby hopelessly impounding itself in some one's back yard ; we therefore felt relieved on seeing its glaring lights, as it rounded a corner and ran into full view. One would imagine that such a noisy monster would at least require to be hailed

through a speaking trumpet, or challenged by the brandishing of a red flag, before it could be stopped ; but upon the waving of our umbrellas, a struggle was seen to take place between the engineer and the machine, resulting in a victory to the former, which brought the whole affair to a standstill sooner than might reasonably have been anticipated. The train consisted of a high-pressure engine, looking like a huge black bottle on a covered truck, and two cars ; an open one for second-class passengers, and a closed one, better finished, for the first-class. These were coupled together by iron rods five or six feet long, so that the various parts of the train seemed to be holding each other at arms' length.

As soon as we stepped on board we were whirled through the town, getting into the principal street by a long narrow alley, where it appeared as if the carriages almost touched the fronts of the houses on either side. It was necessary for the little locomotive to keep up a constant screaming to warn every person to get out of its way—a matter of no little difficulty in this narrow place. What with the whistling and snorting, the dense masses of black smoke filling the streets, and the red-hot ashes falling from the furnace, the traditional calm stillness of a tropical night seemed to be completely outraged. Any one in search of an entirely new sensation cannot do better than go to Para, and take a trip on the steam tramway.

But the most singular circumstance respecting this institution is, that its dirty, well-thumbed tickets pass current in Para shops for their full value of twopence-half-penny each. It somewhat surprises a foreigner, on making a purchase in a shop for the first time, to receive amongst his change, besides the usual paper currency, and some heavy copper coins (called *dumps* by sailors), a quantity of these small dirty

cards, resembling in shape and size the ordinary railway ticket."

However, in other things we certainly have the advantage, as is shown by the following account of the strange costumes seen in Para :—

"Many little children are seen playing about the doorsteps in a state of nudity ; while others of larger growth are very lightly clad indeed. We saw one youth whose sole attire consisted of a pair of patent leather boots, and bright blue socks ; but the greatest curiosity we witnessed in the way of costume was in the case of a young man, whose dress had apparently once been a light-coloured suit, of which but little now remained. His jacket consisted of a collar, a bottom hem, and the various seams joining them ; while his trousers had a waistband with a pendant fringe, seams down the sides, and bottom hems. Such a costume more nearly resembled a harness than a dress, but at least had the advantage of being cool and airy."

From Para our travellers made their way to Mont Algré, and by-and-bye got to Prainha, where the tailor of the village—and a very obliging old fellow he was—unhung the gaol door, and allowed them to use it during their stay as a shelf for their plates and dishes. From Prainha they steamed to Santarem, at which place they were naturally much shocked to see an officer in a black suit and a chimney-pot hat drilling some soldiers of the National Guard from beneath the shade of a voluminous umbrella. Thence, after many excursions in the neighbourhood and a survey of the river Tapajos, to Ovidos, Manaos, Aveiros, Serpa, Guarana, Borba, Pedreira, and innumerable other towns and village on the Madeira, Rio Negro, Purus, Tapajos, etc., the route was one in which there was a constant succession of splendid scenery—scenery amongst the most solemn and beautiful that the world can show.

At Santarem our authors had the good luck to witness a wedding, and here is their description of it :—

"Early one morning, long before day-

light, we were awoke by the discharge of fireworks from a yard adjoining our own, and wondered what could be the reason of this unusual proceeding. On inquiring, it appeared that the gentleman in a neighbouring house was to be married on that day, and was in this way heralding the arrival of the wedding morn. The ceremony itself—unlike similar events in England—did not take place until twilight. There being no carriages in Santarem, it was necessary for the bridal parties to walk from their respective residences to the church. The bride was well-dressed in a white gauzy material, trimmed with watered silk of the faintest steely tinge, a long veil, and a wreath of orange blossoms, while the bridesmaids were dressed with equal taste. As soon as her procession arrived at the church, which, strange to say, was before that of the bridegroom, she and her bridesmaids knelt on the floor engaged in prayer, until the victim himself arrived with his friends, all clad in swallow-tail coats, white waistcoats, and gloves.

The whole party now advanced together to the altar, ascended the spacious steps which had been gorgeously carpeted for the occasion, and arranged themselves before the priest, who was in his grandest robes. The words of the service could not be heard, as the priest spoke only in a whisper ; but as a spectacle the thing was very effective. Only a portion of the church near the altar had been lighted up, and all the spectators, as well as the persons engaged in the ceremony, pressed forward into this illuminated space. Little naked and half-clothed children, negro women with black babies sitting astride their hips, and other picturesque figures, pressed boldly up the steps and took up a position quite close to the bridal party, to which they formed a striking and effective contrast. When the ceremony was over, the newly-married couple, with their friends and their relatives, walked in procession along the grassy streets to the house of the bridegroom, from which sounds of festivities were heard to issue all night."

During one of their excursions from Santarem, they had a somewhat absurd adventure with some of the native dogs. These animals would seem to be very contemptible members of the genus *canis*; indeed, like Falstaff's army, they have no hearts in their bellies bigger than pin-heads. Just see how they draw the line at white faces :—

"Before leaving the place to go inland we were warned that we should meet a settlement where there were some savage dogs, the owners of which were not at home. Knowing that Amazonian dogs cannot stand a charge from a band of pale faces, even though those faces be crimsoned and peeled by the sun, we were not only not afraid, but anticipated some fun from the encounter. This was fully realized upon our arrival at the place, where some six or eight dogs and a half-grown puppy advanced to the attack, with deafening barks and snarls. Instead of being brought to a stand-still by this demonstration, we made towards them at a run, keeping well in line, armed with various implements, amongst which was a geological hammer and a cutlass. The nearer we got to them, the less confident became their tone of bark, until, as we were within a few feet, it assumed the sound of a semi-howl as they turned and fled in a most panic-stricken condition, and in a sort of each-dog-for-himself style. The puppy, brave as a lion at first, now took refuge beneath an oven, from which it uttered the most heartrending cries, while we dodged round the houses after the demoralized dog army; and never rested until every member of it had disappeared in the depths of the forest, leaving us masters of the deserted village."

Here is a far more picturesque scene, which our travellers were eye-witnesses of, one day when they were surveying the Tapajos :—

"A somewhat lively scene was witnessed on Saturday morning, when, in a temporary burst of sunshine, the camp was removed, and the survey recommenced. The women of Jamaragua suddenly issued from the

house, armed with lances or pointed sticks, and ran down to the beach to hunt fish. The younger ones threw off all their clothing, while the remainder gathered their garments up and around them, and every one waded into the shallow water, where they proceeded, with great dexterity, to spear the fish, which they had probably observed to be visiting the shore in unusual numbers. As the sport advanced they grew quite excited, rushed about with great rapidity, and made the air ring with their shouts. It was so important to get on with the survey that time could not be spared to observe the result of their efforts."

Here is an account of a visit to the "primeval forest" :—

"With so much to interest us, a day in the forest ought to have been exceedingly enjoyable, but unfortunately the plague of insects greatly diminished, if it could not wholly remove, the charm of the thing. In the first place, there were of course mosquitoes. We already tire of mentioning these; but, as a matter of fact, the shade of the trees was their haunt by day, just as the houses were their places of assembly at night; any one therefore who spent his nights at home and his days in the forest simply kept in the company of the mosquitoes throughout the twenty-four hours. In the next place, there were wasps of all sorts. Some little ones made nests under a single leaf, and could be removed without much danger, by being gently whistled to while the twig was carefully broken off. Others had large dwellings—some round, and some elongated—in the trees, looking like Dutch cheeses or Scotch haggis puddings; and in cutting our way onward, these necessarily got an occasional shake, when down came the fierce occupants and stung us fearfully, nor could we pass by until they had been burnt out. Ants were in far greater variety than wasps, and had a large assortment of methods for inflicting torture. Some swarmed upon us in myriads, dropping from the bushes overhead, or running towards us from all points of the compass; but contented themselves

with simply tickling. Others gave forth a most sickening odour, that became at times almost unbearable; but most of the ant tribe bit and stung savagely. One huge kind, fully three-quarters of an inch in length, had to be very carefully guarded against, as their sting is said to be almost maddening. They had holes at the roots of certain bushes, and rushed out when the branches were shaken. When it was necessary for the men to continue their cutting in the vicinity, they would at once brush aside any leaves that might afford them cover, and set a boy to watch that they did not make a stealthy advance towards their bare feet. Bees formed another class of pests. Some tiny ones would cause a constant annoyance during the hottest part of the day by persisting in drinking the moisture of our eyes. Larger ones entangled themselves in our hair, and bit our heads; while there was a very large kind—more like a beetle than a bee—which made a most valiant defence of its home. This sort went in couples, and built their nests in hollow trees. When we passed near they sallied forth, and swung round us in great circles with a loud humming noise, like the sound of a steam fan; swooping down now and again upon one or other of the party—not to bite or sting, but to hit a blow by the impetus of their motion that would be long remembered

by the unlucky receiver. The figure we cut on these occasions was not heroic, for it was very laughable to see one after another diligently ducking to avoid the assailants. Sometimes we could not get by their place of abode, except by strategy. Retiring a little way, and watching them return to their nest, we made a rush as soon as they had got in, and stopped up their hole with a wooden plug. Thus effectually shut up, they could be heard humming in a terrible way inside; but before they could eat themselves out, we were far distant. In some parts of the forest, where it bordered upon the savanna, clouds of flies rose up out of the bushes and tickled our faces so persistently that it was difficult to look through our surveying instruments, or record the observations. But the worst pest of all at Prainha—for almost every place has its special plague—was that of the ticks. These disgusting creatures were of three sizes, the smallest scarcely larger than dust, and the biggest nearly the size of a pearl button. The bushes swarmed with them, all standing on their hinder legs to be ready to lay hold of us with the others as we passed by; and, when we stood still for a moment, they could be seen hastening towards us from all directions. It took us a full hour, when we arrived home in the evening, to pick these loathsome insects from our clothes."

PALERMO AND ITS CATHEDRAL.

PALERMO, from a distance, resembles more an Oriental than a European town. The multiplicity of slender-pointed spires look very much like minarets, while the thickets of Indian figs used everywhere as fences to the cultivated grounds, the profusion of aloes and other plants of a similar character, bear a striking resemblance to tropical

vegetation. From a bird's-eye view, the city seems to stand in a garden of trees and flowers, and amidst groves of orange-trees of the species known as the Mandarin, distinguished by its narrow, myrtle-like leaves. Convents, palaces, villas, and churches, lie spread out before the vision in glittering confusion.

In the foreground there is the beautiful blue sea, and the glorious picture

is backed by a range of high mountains; while the dazzling white of the houses forming the marine parade, facing the sea, and the indescribably deep blue sky, making even the blue sea look pale, adds much to the brilliant colouring of the whole scene.

The city is about four miles in circumference, and contains two very fine streets, crossing each other at right angles, and dividing the town into four equal parts. The streets have a peculiarly rich and ornamental appearance, from the fact of almost every window having an elaborately carved stone balcony, and where the houses belong to religious communities, there are usually in addition gilt lattices. The streets are narrow and the houses immensely high, which is invariably the case in southern countries, as, owing to this mode of construction, you insure always getting a certain proportion of shade, even in the scorching days of a Sicilian summer.

The churches are well worth seeing, particularly the fine cathedral, of which we give a view. In this structure there is a singular mixture of architectural styles, the body of the building being decidedly Arabesque, while the fine dome is of the severest classical order, being not unlike that of St. Paul's at London. The interior is very fine; the churches generally, in fact, are gorgeously and profusely decorated in perfect taste, with an endless variety of the sumptuous native marbles. Were the quarries in the island properly worked, and could sufficient capital be obtained for their efficient management, they might be made a most profitable speculation for the inhabitants. The marble is of the rarest

kind, as the visitor has the opportunity of seeing in the small workshops, where sufficient is to be found for the manufacture of a few trifling articles to tempt strangers. The jaspers also are beautiful, and many rare specimens of agate are exhibited.

One of the most curious sights of Palermo is a burial-place called the Catacomb, situated about three miles from the town. The spot is attached to the Convent of the Capuchins, and its situation is certainly very beautiful.

On arriving at the convent, we are directed to descend a vast number of steps, on doing which we find ourselves in a spacious subterranean apartment, or rather gallery. The walls on each side are hollowed out into a variety of niches, looking as if they were intended for a collection of statues; but instead of these they are all fitted with dead bodies set upright and fixed by a band round the waist to the inside of the niche. Their number is three hundred, and they are all dressed in the suits they wore in life. This disgusting sight is regarded as a great feature of the place.

The environs of Palermo are very fine. The road to Monte Pelegrino, in particular, is most picturesque. The mountain is of great height, and exceedingly steep. At a vast expense a road has been cut over precipices almost perpendicular, and numbers daily resort to it, to worship at the shrine of St. Rosalia. Every fresh turn in the road produces some wondrous change in the panorama, and the prospect from the top of the mountain is glorious. In the distance the snows of Etna glitter in the sunshine.

A COUNTRY UNDER WATER.



HOLLAND has very often been the theatre of vast inundations; and, indeed, every year the population inhabiting the river districts have to expect a repetition of these calamities. Their forefathers, having experienced the fearful power of these resistless floods, have lined the rivers on both banks with dykes or dams, which are composed of earth and mud, and built up to a height of twenty to thirty feet above the bottom or bed of the river. As long as frost does not change those fluent mirrors into marble, all goes well, for seldom the water which comes down from Germany reaches such a height as to overrun the dykes. But when the frosty breath of winter congeals the limpid crystal, the greatest danger threatens the villages and towns with which those districts teem. Nothing is to be feared, however, as long as the ice is unbroken.

But no sooner do the rivers begin to melt in Germany, than large pieces of ice, many of them being hundreds of yards in dimension, float down with irresistible speed. Nobody except eye-witnesses can have a conception of the crushing force of the floating ice. Bridges, houses, trees, are carried off, and poles five feet thick are cut off as with a razor. So long as the ice meets with no great object in its way, it floats down peacefully on the surface of the swollen water. But often, in consequence of the short windings of some rivers, a large piece of ice gets stopped, soon another piece of ice unites with it, and within a few minutes a large mountain of ice stops the river. Then the water, having no outlet, swells to an incalculable height. No dykes can be elevated enough to prevent its swelling. The hydraulic pressure becomes irresistible. Large pieces of floating ice

beat like storm rams against the earthen dykes; in a trice some large portion is cut out of them, and with thundering violence the raging element pours down into the fields which lie from thirty to forty feet beneath.

Such ice stoppings have often been the cause of most lamentable disasters in the country. The years 1784, 1799, 1809, 1820, 1827, and, above all, 1855, are written with blood and tears in the annals of Holland. In the latter year not less than thirteen dykes were broken by the ice; a fourth part of the large countries of Gelderland, Utrecht, North Brabant, and South Holland was turned into a sea. By one dyke-break near the village of Drenmel, nearly 50,000 acres of cultivated land were inundated, and a thousand families deprived of their homes and property.

But all this misery, however great, has been put into the shade by the calamities which came over the country in the early portion of the year 1861. Never before had the water reached such a height, nor was the fury of the ice so extravagant. The place which was first struck was the fertile and luxuriant district of Bommelerwaard, an island encircled by the rivers Waal and Maas. At nine miles distant from the town of Bommel are the flourishing villages Brakel and Poederoyen. There an ice-stopping took place about the 8th of January. The inhabitants of those places were at work day and night to fortify the dyke. Stones, earth, dung, and all sorts of rubbish, were brought to heighten the dyke, and men, women, and children exerted themselves in fighting the common enemy.

But all in vain. The ice broke through, and the thunder of the cannon, which is always fired to give warning, announced the sad intelligence to the surrounding villages and towns. In a few minutes the whole district was under water. The ice

swept away everything that opposed resistance. Numbers of rickyards, houses, and farms were uprooted and turned upside down. Soon the water covered the villages up to the roofs of the houses. Pieces of furniture, swimming cattle, roofs of houses, floated to and fro on the surface of the large pool, between pieces of ice which threatened to crush everything. Some few houses remained standing; their inhabitants saved themselves by escaping to the attics or to the roofs, where they spent all the night and a portion of the next day in fear and agony, till a boat came to take them off. Most people ran to the dyke, where it was not broken, and kept there waiting for boats, which, however, in consequence of the darkness of the night and of the floating pieces of ice, could not reach them until the next day, and then with great difficulty. There was no possibility of saving any property. Many persons had no time even for dressing, and fled in their under-clothes. Within two days, sixteen thriving villages were inundated, nearly 18,000 persons driven from their homes, and numerous lives lost.

All this happened while it was comparatively mild weather. Some days afterwards a severe frost again set in, and the whole inundated district was covered with ice. Many persons from all parts of the country now came to witness the fearful spectacle. It was a strange, heart-rending sight—a sea of ice, as far as the eye could see, and here and there a top of a tree or a roof of a house peeping out. A traveller in the district visited the spot on skates. Having reached the place where once the village of Gameren stood, he saw the church peeping out at half its height. He skated through the window, over the pulpit, and went out through the window on the opposite side of the building.

But this was only the beginning of the misery. A still greater calamity was in store. It was to be expected that a second inundation would take place, when thaw weather again would set in. With fear and trembling, every one watched the ther-

момeter. Soon the dreaded danger approached. About the end of January the rivers again melted, and now the poor village Leeuwen, situated on the bank of the Waal, not far from the town of Tiel, was the disastrous spot. On the first of February, the cannon announced a dyke-break in that place, and soon at other places, namely, Zuilichem, Nieuwaal, etc., the furious element destroyed the work of man. At Nieuwaal, a piece of 110 yards' length was cut out of the dyke, leaving an abyss of thirty feet depth. Some twenty villages, with their surrounding farms, were covered with water and ice. Thousands of families were driven from their homes. To rescue themselves, 3056 persons clustered together on an elevated spot scarcely spacious enough for 1000. There they spent several days in the open air in that frosty season, with no other food than fifty loaves of rye bread for all of them. Some saved themselves on floating pieces of ice. One family, consisting of nine persons, floated away on a piece of thirty yards' dimension. In the night the piece was broken into two parts, and five of the family were severed from four. They thought each other lost for ever. But God held His hand stretched out over them. After two days' floating about they met again in a place of refuge, where they were hospitably taken in. Most affecting accounts have been related of the wonderful protection with which the merciful God preserved many of those victims. Thus, a girl of eight years was found on a floating roof, who had spent seven days and nights in that position. Still she was alive. She had subsisted on apples, which she had picked up while swimming along.

Thousands of pounds were sent in from all parts of Holland, from Germany, from Belgium, from France, and from England. Provisions and clothes were generously sent to Arnheim, St. Herlogenbosh, Tiel, Bummel, Gorinchem, etc., where between 30,000 and 40,000 of the victims were hospitably received and cared for, the king himself visiting the scene.

THE SALT MINES OF HALL.



Hall, in the Tyrol, are enormous salt mines, a graphic description of which is given in Inglis's Tour in that district:—

"In the interior, as well as outside, Hall bears upon its front the appearance of great antiquity. Gloomy old houses flank narrow winding streets; scarcely one modern building is to be seen; the ancient wall-towers and little gates yet remain, as well as the deep ditch, and recall to mind the wars of early times, of which Hall was so often the scene. It is scarcely possible to conceive a more horrible abode than Hall; it is constantly enveloped in a dense atmosphere of smoke, which not only darkens the air and blackens the houses, but throws a dinginess over the dresses of the people and makes them appear of a sootier and duskier race.

After breakfast I proceeded to visit the mines, clothed in a suitable dress; and with a staff in my hand, and preceded by flambeaux, I followed my conductor into the mine. The visit commences with a descent of 300 steps, when one may fairly believe himself in the bowels of the mountain.

'Tis a strange empire one finds in these dismal abodes; life is a different thing when sunlight is withdrawn, and there is an icy feeling falls upon the heart, as well as on the senses, when we look around these dismal galleries and dark walls, dimly lighted by a few ineffectual flambeaux that convey truly the idea of 'darkness visible,' and scan the dark subterranean lakes, whose extent and profundity the eye cannot guess but by a plunge of a fragment of the roof and the dim glimmer of the lights, and hear the distant stroke of the miner's axe far in the interior of the caverns. And still more do we feel the difference between the

world above and regions such as these when we reach the solitary miner in some vast cavern with his single candle, striking his axe ever and ever into the dull wall. But along with these feelings, astonishment and admiration are engendered at the power of man, whose perseverance has hollowed out the mountain, and with seemingly feeble instruments—his hammer, arms, and little axe—has waged war with the colossal works of nature. The results are, indeed, almost incredible. No fewer than forty-eight caverns have been formed, each from one to two acres in size. One of the galleries is three leagues in length. I was assured that to travel all the galleries, six whole days would be required. The manner of proceeding is thus: when these subterranean caverns are formed, the miners detach fragments of the native salt from the roofs and walls; and when the cavern is sufficiently filled with these, pure water is let in, which dissolves the salt, and the water thus impregnated is conveyed by the conduits from the mines to the manufactories of Hall.

When I visited the mines, some of these caverns were dry, and the miners were employed in them; others were salt lakes, in which the more silent operation was going on. Occasionally a distant hollow sound is heard approaching nearer and nearer, which one easily mistakes for the rushing of water; this is occasioned by the little chariots which carry away rubbish to the mouth of the mine; the path is a railroad, and the little chariots fly along it with a frightful rapidity. When the sound is heard approaching, it is necessary to retire into one of the niches that are formed in the wall, and the young miners, seated in front of their chariots, seem as they pass by, like gnomes directing their infernal cars.

The number of miners employed is 300, and the pittance of wages which they receive is miserable. They are paid according

to seniority. Their labour is, however, not without intermission; they work and rest four hours alternately. Interesting and curious as a spectacle of this kind is, it is impossible to be restored to the 'sun and

air,' without a feeling of satisfaction; and we are almost surprised to find how genial the sunshine is, and how beautiful the sky; and we drop with cheerfulness a mite into the poor miners' box."



RINGING THE WILD HORSE.

It is well known that on the vast South American plains troops of wild horses roam at liberty. To catch these noble creatures expeditions are occasionally organized. Says a hunter:—

"As we cast our eyes over the valley, we beheld a troop of wild horses quietly grazing on a green lawn about a mile distant to our right; while to our left, at nearly the same distance, were several buffaloes, some feeding, others reposing and ruminating among the high rich herbage, under the shade of a clump of cotton-wood trees.

A council of war was now held, and it was determined to profit by the present favourable opportunity, and try our hand at the grand hunting manœuvre which is called 'ringing the wild horse.' This requires a large party of horsemen, well mounted. They extend themselves in each direction singly, at certain distances apart, and gradually form a ring of two or three miles in circumference, so as to surround the game. This has to be done with extreme care, for the wild horse is the most readily alarmed inhabitant of the prairie, and scents a hunter at a great distance, if to windward.

The ring being formed, two or three hunters ride towards the horses, who start off in an opposite direction. Wherever they approach the bounds of the ring, however, a huntsman presents himself and turns them from their

course. In this way they are checked and driven back at every point, and kept galloping round and round this magic circle until, being completely tired down, it is easy for the hunters to ride up beside them and throw their lariats over their heads. The prime horses of most speed, courage, and bottom, however, are apt to break through and escape; so that, in general, it is the second-rate horses that are taken.

Preparations were now made for a hunt of this kind. The pack horses were taken into the woods, and firmly tied to trees, lest, in a rush of the wild horses, they should break away with them. Twenty-five men were sent, under the command of a lieutenant, to steal along the edge of the woods, and not to advance or show themselves until the horses dashed in that direction. Twenty-five men were sent across the valley to steal in like manner along the river bank that bordered on the opposite side, and to station themselves among the trees. A third party, of about the same number, was to form a line stretching across the lower part of the valley, so as to connect the two wings. Beattie, and our other half-bred, Antoine, together with the ever officious Tonish, were to make a circuit through the woods so as to get to the upper part of the valley in the rear of the horses, and to drive them forward into a kind of sack that we had formed; while the two wings should join behind them and make a complete circle.

The flanking parties were quickly extending themselves, like the links of a chain, across it, when the wild horses gave signs that they scented an enemy; sniffing

the air, snorting, and looking about. At length they pranced off slowly towards the river, and disappeared behind a green bank. Here, had the regulations of the chase been observed, they would have been quietly checked and turned by the advance of a hunter from among the trees; unluckily, however, we had a wild-fire jack-o'-lantern little Frenchman to deal with. Instead of keeping quietly up the right side of the valley to get above the horses, the moment he saw them move towards the river, he broke out of the covert of woods, and dashed furiously across the plain in pursuit, being mounted on one of the led horses belonging to the Count. This put an end to all system. The half-breeds and half-a-score of rangers joined in the chase. Away they all went over the green bank; in a moment or two the wild horses reappeared, and came thundering down the valley, with Frenchman, half-breeds, and rangers galloping like mad and yelling like devils, behind them. It was in vain that the drawn line across the valley attempted to check and turn back the fugitives. They were too hotly pressed by their pursuers. In their panic they dashed through the line and clattered down the plain. The whole troop joined in the headlong chase; some of the rangers without hats or caps, their hair flying about their eyes, others with handkerchiefs tied round their heads. The buffaloes, that had been calmly ruminating among the herbage, heaved up their huge forms, gazed for a moment with astonishment at the tempest that came scouring down the meadow, then turned and took a heavy rolling flight. They were soon overtaken; the promiscuous throng were pressed together by the contracting sides of the valley, and away they went pell-mell, hurry-scurry, wild buffalo, wild horse, wild huntsman, with clang and clatter and whoop and halloo that made the forests ring.

At length the buffaloes turned into a green brake on the river bank; while the horses

dashed up a narrow defile of the hills with their pursuers close at their heels. Beattie passed several of these, having fixed his eye upon a fine Pawnee horse that had his ears split and saddle on his back. He pressed him gallantly, but lost him in the crowd. Among the wild horses was a fine black mare. In scrambling up the defile she tripped and fell. A young ranger sprang from his horse and seized her by the mane and muzzle. Another ranger dismounted and came to his assistance. The mare struggled fiercely, kicking, and biting, and striking with her forefeet; but a noose was slipped over her head, and her struggles were in vain. It was some time, however, before she gave over rearing and plunging and lashing out with her feet on every side. The two young rangers then led her along the valley by two lariats, which enabled them to keep at a sufficient distance on each side to be out of the reach of her hoofs; and whenever she struck out in one direction, she was jerked to the other. In this way her spirit was gradually subdued. As to that little scaramouch Tonish, who had marred the whole scheme by his precipitancy, he had been more successful than he deserved, having managed to catch a beautiful cream-coloured colt, about seven months old, that had not strength to keep up with his companions. The mercurial little Frenchman was beside himself with exultation. It was amusing to see him with his prize. The colt would rear, and kick and struggle to get free, while Tonish would take him by the neck, wrestle with him, jump on his back, and cut as many antics as a monkey with a kitten.

Nothing surprised me more, however, than to witness how soon these poor animals, thus taken from the unbounded freedom of the prairie, yielded to the dominion of man. In the course of two or three days the mare and the two colts went with the led horses, and became quite docile."



A TROPICAL SNOW MOUNTAIN.

AFRICA is the grave of many noble spirits. The Rev. Alfred New, after a brilliant and self-denying career as a missionary and explorer, at last succumbed to the malarious climate. His account of the ascent of Kilima Njaro, the tropical snow mountain, will exhibit the adventurous nature of the man:—

“At length all difficulties were removed, and our party was organized. This time I took only the guide and Tofiki of my own men; the Waniki were utterly useless, and were left behind, of which they were heartily glad. As guides, Mandara gave me Mtema and a brother of Marondo, Marondo himself having fallen ill. The first made his appearance at seven in the morning, and we set out at once. We called for the other guide on the way, and found him busily engaged preparing for the trip. Standing before his hut, he was receiving at the hands of his wife a thick covering of grease. He was a fine, tall, muscular fellow, quite a model, and absolutely without clothing. The scene brought to my mind the meeting of Ulysses with the Princess Nausicaa on the shores of Phœacia, only there was less of shame and delicacy, if not more innocence, in this than in the Homeric scene. Our arrival did not disconcert them in the least; the lubricating process went on till every part had received its due proportion of grease, and the hero shone again. But his wife was murmuring rebellion in his ears all the time. “What,” said she, “are you to have for this journey? It is one of danger. You will feel the cold; let them give you a cloth before you start. Unless they do so, I would not go if I were you.” This was mentioned to me. I would gladly have given a cloth had I had one, but I had not, and explained the

arrangement I had made with the mango instead. Nothing more was said, and the man, seizing a bundle of skins, at once led the way.

Making a halt at the border to procure men and food, as we had done before, we continued our way. Our party completed, we numbered a dozen men; myself, Sadi, Tofiki, and nine Wachaga. Crossing the border at eleven a.m., we pursued the path we had taken before till two p.m., when we turned a little more to the left, going almost due north. Our present guide seemed more familiar with the work than Marondo:—

‘He knew each lane, and every alley green,
Dingle or bushy dell of this wild wood,
And every bosky bower from side to side.’

The weather was very fine and clear, though in so dense a forest we scarcely got a glimpse of the sun. On, on! up, up! we urged our way till the sun was fast declining to his rest. The rate at which we walked tried our utmost strength. Reaching the stream we had crossed on the former occasion, we paused. The guide sank from sheer exhaustion, Tofiki looked fatigued, and I confess I was weary. The stream here was much smaller than at the part where we had met with it before, for this time we had come upon it at a point much higher up the mountain. The water was so cold that I could only drink it in sips, it made my teeth ache. Ascending the steep face of the mountain on the other side of this stream, we encamped in a wood composed of broom from twenty to thirty feet in height.

In a few moments the Wachaga put up a long shed, and did everything we asked them to do without a murmur. Without a scrap of clothing they ran about in the cold, and never gave in till the work was done. The air was very sharp and frosty; I, who had clothing, felt this, and it is a wonder to

me how the others bore it so well. I made up for myself an excellent bed of the fine tops of the trees and moss combined, the latter being so abundant on the ground as to yield beneath the feet like a feather bed. Fires were made large enough to roast an ox, still we could keep ourselves warm only on one side. Dividing my blankets between myself and the rest of the men, we rolled ourselves up for the night.

The next morning at 5.30 the thermometer, placed on a log of wood under the shed, read $37^{\circ} 30'$. The hoar frost was as thick on the leaves as I have ever seen it at home. In a few minutes we issued from the forest, when our guides paused, and pointed to something directly before them, and there rose Kibo, apparently within an hour's march from us. It was a glorious sight. Not a cloud streaked the ethereal blue above, and in the light of the morning's sun the snow shone with dazzling splendour. I thought of the words of the Psalm which struck Mr. Rebmann when he obtained in the far distance his first view of Kilima Njaro, twenty-three years before: 'Praise the Lord, I will praise the Lord with my whole heart. The works of the Lord are great, sought out by all them that have pleasure therein. His works are honourable and glorious, and His righteousness endureth for ever: He hath made His wonderful works to be remembered. The Lord is gracious and full of compassion. He hath shown His people the power of His works, that He may give them the heritage of the heathen.'

Above the grass we reached an Alpine region of grass-covered hills, with a few patches of moss-draped wood here and there. The grasses were very different from the short lawn-like turf of the lower regions, being of a bladed and a much taller kind, but still abounding in clover and variegated with flowers. From one root sprang, high above all else, a stem bearing a large pink flower, tall and graceful as the lily. Another plant, much resembling sage in appearance, attracted my attention, and plucking the leaves, I found them highly

fragrant. From one of the loftiest elevations in this region I turned to take a retrospect of the country over which we had passed. No wonder that the atmosphere was so clear, for we were far above the region of the clouds. Down rolled the mountains from our feet till all was hidden, and the eye rested upon illimitable fields of snowy clouds, exhibiting all manner of fantastic shapes, marching in grand array, performing wondrous evolutions, unfolding, expanding, changing their forms and position in endless variety, and displaying the most fascinating charms.

Turning our backs upon this we resumed our climbing, which, relieved though it was by a slight descent now and again, was toilsome work, and made large demands upon our lungs. Sadi fell far behind, being almost beaten, and unable to carry even his own gun. Height after height was ascended with occasional pauses, till we reached another vegetable region,—one with heath, varied with detached clumps of a wiry kind of grass, many plants with frosty looking leaves, and exceedingly pretty flowers; higher the steeps were covered with out-cropping rocks, not of granite and felspar, of which all the surrounding mountains are composed, but of pudding-stone or conglomerate, and grey, compact, laminated rocks.

At noon we halted upon a rocky ridge, directly before the snowy Kibo, in full view of Kimawenzi, and apparently very near the 'eternal snows.' The sun poured his vertical beams upon us, yet the air was so cold and the wind so bleak that the men shivered. Setting up the thermometer upon the point of a spear, the mercury descended in half an hour from 70° (I had carried the thermometer in my pocket) to 57° , and in another half an hour to 50° , and this in the full blaze of the noon-day sun.

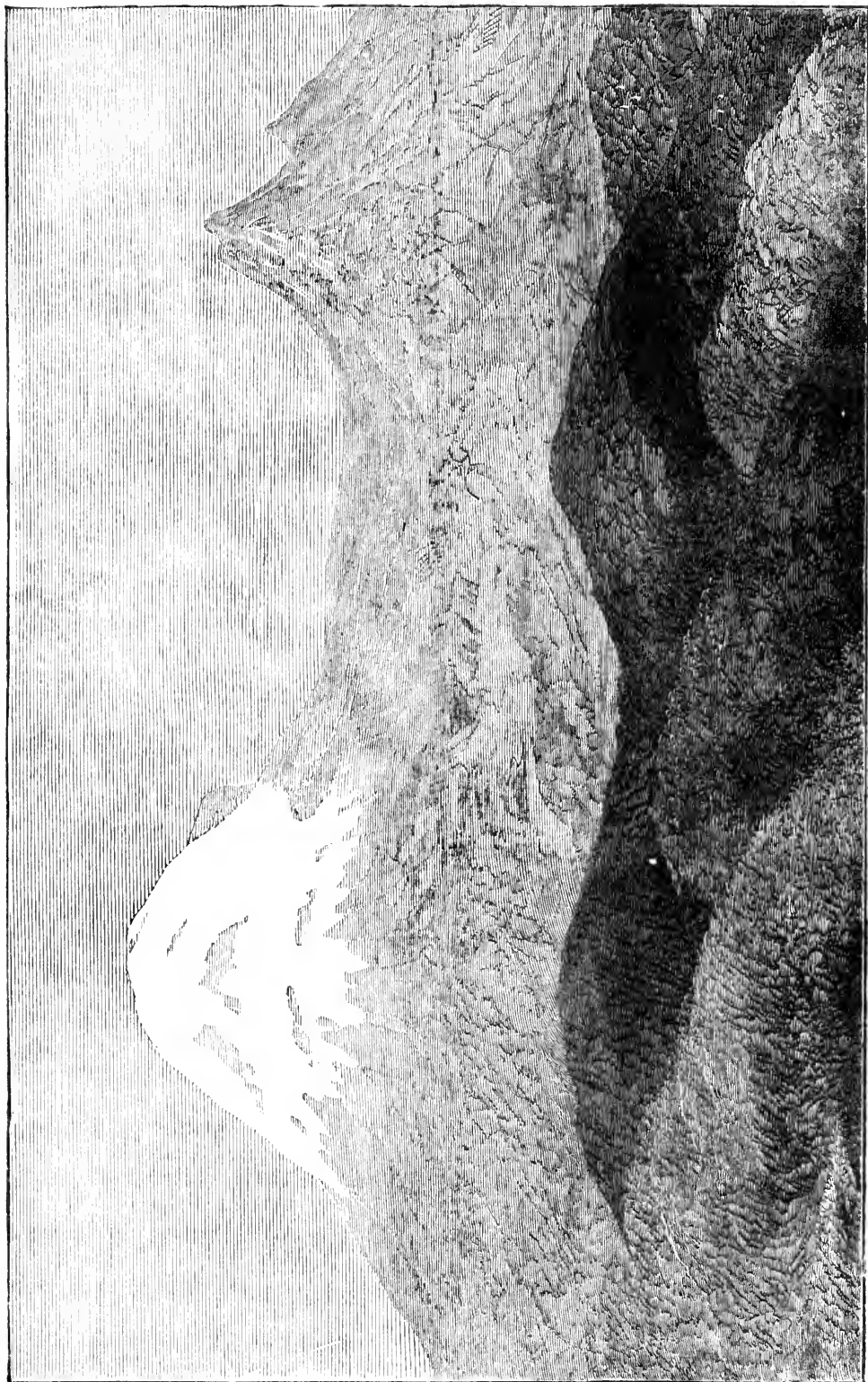
I was struck with the exceeding dryness of the soil. After encountering, as we had done so recently, the heavy rains of the forest, and walking up to our ankles in the mud of that region, the dryness here was remarkable. No rain could have fallen

here lately, for the simple reason that the cloud level at this season of the year is far below this. However, soon after noon heavy mists came sweeping up the mountain, which ere long obscured everything. At 4 p.m. we came to a large overhanging rock, forming a kind of cave, and here our Wachaga advised we should put up for the night. The rubbish cleared away, a thick bed of heath strewn upon the ground, immense fires made of the roots of the bushes, and we were prepared for another night. The fires blazed furiously, yet they burnt without warming us; beard and whiskers were singed off, yet we were cold. Sadi greatly amused us, he was so nervous. The rocks echoing our every word, he thought there were other beings on the mountain besides ourselves. All the stories of elves, goblins, ghosts, ghouls, and other spirits of all sorts he had ever heard of regarding the occupants of Kilima Njaro, now came home to him and greatly distressed him. When he lay down he thought he heard the shock of an earthquake. 'There!' he exclaimed, starting up; 'what was that? The very earth moves! There! there!'

Travelling, like poverty, makes a man acquainted with strange bed-fellows. That night I lay in the midst of a dozen savages of whom I knew nothing, and who for many reasons were not a desirable party to sleep with. One of my neighbours woke me up in the middle of the night by tugging at my blanket, and when I tugged it back, he made such pitiful complaints about 'mbetro' (cold), and 'kukomeka' (dying), that I could not deny him the use of it. In the middle of the night the mercury sank to 23° , but at dawn it rose to 34° . The morning was extraordinarily clear. The snows, too, how near they seemed to be! There seemed to be but one ridge between us and them, and to all appearance we should reach them in ten minutes. The sunrise that morning was a 'flood of glory'; and what a scene lay outspread before us! There was nothing to bound our view but our own weak powers of vision. East, west, south, all lay before us; in the clouds thousands of feet below

us, extending in an illimitable sea of snowy, convolving masses, or, to speak figuratively, like a multitudinous army waiting in the still morning air till they should receive their marching orders, be marshalled by the winds, or dispersed to their quarters by the monarch of the day. Through the openings in the clouds peeps of the distant mountains and of the plains below were obtained. A little south of east was Bura; farther south, in the misty distance, were the hills of Usambara; nearer were Parof Ugono; and at the foot of the latter lay the lake Jipe, its whole outline being clearly defined. A little to the north of Jipe a column of smoke indicated the position of Taveta; and north of that, within perpendicular cliffs, was a little blue sheet of water which I knew must be the lake of which I had heard such strange tales. Farther to the south were Kahe, Arusha wa Tini, the mount Sogonoi; and behind Sogonoi other mountains and hills. To the west was the plain of Arusha wa Ju, and the mountain Meru pointing to the skies. All other mountains now appeared very insignificant; but Meru was still a grand object. Turning to the north, on the right was the frowning Kimawenzi, and on the left Kibo, which, illumined by the rising sun, shone transplendently: the first looking not unlike L'Aiguille du Dru, and the second Jungfrau of the Alps.

Commencing our toils early, at 8 a.m., we reached a heap of rocks, among which grew a solitary tree, where we sat down to rest. The Wachaga said this was as far as they dared to go. 'We have come,' they continued, 'farther than any one ever came before, and this is all we can do. There is Kibo very near now; if you wish to go on, you can do so, and we will wait here till you come back.' I expected this. Tofiki, however, though he was feeling the cold severely, declared his determination to go with me to the last. Every encumbrance was now laid aside, for we had our work to do. For a climbing stick I borrowed a spear, while Tofiki relieved a bow of its string, and took that. Now, leaving the rest of the



From a sketch by the Rev. A. New.

THE SUMMIT OF KILIMA NJARO.

party over the fires which they had kindled in the centre of the group of rocks, where they were well sheltered from the cutting winds, Tofiki and I went on alone.

The higher we ascended the more rocky the steeps became; but for a while a little heath, and various kinds of frosty-looking plants with pinkish and yellow flowers remained. The grey rocks, brownish-green heath, and ash-coloured plants gave to the region a peculiarly mottled appearance, striking for its uniformity and extent. At length the vegetation dwindled down till it disappeared altogether, and there was nothing left but rocks and rocks.

Over the rocks we ascended, ridge after ridge, to find that there was yet another. It *was* wearisome work. At length the rocks gave place to clear tracts of loose, dry sand, in which we sank up to our ankles; and now we began to find it difficult to respire. It was as if there was no breath in the atmosphere. A distance of twenty or thirty yards exhausted us. My lips were cracking, the veins in my head felt like bursting, my head swam, and, I was going to say, my very wits seemed wandering.

Great changes were coming over Tofiki. He could not keep up with me, though I urged him constantly to do so. 'Pole, pole (slowly, slowly), Buana,' he gasped out, and I slackened my pace. Still he remained behind. He was fast failing. When we paused for breath, I rested; he rather fell than sat down. His efforts to speak were mere sputterings. At length he mustered courage to say, 'The ascent of this mountain is nothing to me; but I do not want *you* to be beaten. I fear, however, I cannot go much farther.' Now, nothing but the sternest necessity could have elicited this confession from him. I did not wish to try him too severely; still, as we were so near the goal, I cheered him on. I got from one stage to another, till, falling to the ground and gasping for breath, he stammered out, 'Buana, I cannot go on; but if you have strength, try alone, never mind me; I should not like

you to be beaten; I will wait here for you. If you come back, well and good; if not, I shall not move from this spot, but shall die here!' and the good, faithful fellow meant every word he said. I would not have sacrificed him for all the 'eternal snows' on the world; but I could not give up yet. If I could only reach the snow so as to touch it, I should be content; and it now seemed really within my reach. I paused to take a view of my situation. There was Kimawenzi on my right some miles off, but in appearance very near, almost standing over me in awful majesty. Between myself and it there was nothing but a wind-swept declivity of coarse, dry sand, as clean and as smooth as a sea-beach; but I was not bound thither. A little on my left was the snowy Kibo. I was almost flush with its southern face, and, I believe, quite as high as its snow-line on that side, and higher than the snow lies on its western slopes. The snows which were visible now were those lying on its eastern side, and they were at a much greater altitude than those on the other sides. The snow on the east of Kibo is a thick cap upon the very top, but trending downwards in an irregular line towards the south. At the south-east of the dome there is a precipice, at the bottom of which is a long tongue of snow, from which the snow-line runs downwards round the dome to the west. It was this patch of snow upon which I had all along fixed my eye, and which I desired to reach. Directly before me was the ridge which runs between the two summits; but it is not the one that is seen from below. It rises into two mounds in the centre, but is otherwise smooth and regular. The distance between Kibo and Kimawenzi did not appear so great here as it did from our camp at Moche, but this may be due to the refraction of the atmosphere.

But how was I to reach that patch of snow? There was the saddle ridge before me, and the way to it was clear, there being nothing between me and it but a smooth, sandy hollow. Gaining its top, I could pursue my way down hill to the top of the

precipice, at the bottom of which the patch of snow I was aiming at lay ; but would the descent of the precipice be practicable? If not, could I reach the topmost rim? I feared not ; for the ascent is so steep and rocky that to climb it would require ladders and ropes, with which I was not provided. There remained then the direct route to the spot. The ground was almost level, but immense detached rocks encumbered the way and prevented my seeing what was beyond them. However, I determined to take this direction, so bade Tofiki 'kua heri' (good-bye), telling him I should be back with him before long, I went on ; but it was hard work, breathing being so difficult that I had to pause at every few steps for breath. The sensations, too, which came over me at the idea of the profound solitude, of standing on heights to which no human being had ever before ascended, were overpowering. The situation was appalling, there was a grandeur and magnificence about the surroundings which were almost too much for me ; instead of exhilarating they were oppressive.

I had not gone far, however, before I came to a tremendous gulf, dropping almost sheer down between myself and the patch of snow to which I hoped I was making my way. This gulf was all that now remained between myself and it, but what an ALL ! The snow was on a level with my eye, but my arm was too short to reach it. My heart sank ; but before I had time fairly to scan the position, my eyes rested upon snow at my very feet ! There it lay upon the rocks below me in shining masses, looking like newly-washed and sleeping sheep ! Hurrah ! I cannot describe the sensations that thrilled my heart at that moment. Hurrah ! I thought of Tofiki. Returning a short distance, I called to him at the top of my voice, and in a little while he made his appearance, looking horrified. What had I seen ? Strengthless as he was, my cries went through him like an arrow, and gave him new vigour. He expected to find me in the hands of some monster, about to be tossed into some

abysmal depth ! Reaching the spot where I had seen the snow, he exclaimed, 'There is snow ! What more do you want, Buana ?' 'Nothing,' I observed, 'but we must carry some of it away.' It was frozen as hard as the rock itself, but with the spiked end of the spear I carried I broke off several large masses. Tofiki put them into his blanket, slung them over his shoulders, and away we went downhill in triumph ! I made the more haste as my head was so giddy I was afraid of swooning. Tofiki, too, looked wild and strange ; and besides this, as noon was approaching, the mist would soon come sweeping up the mountain and make it difficult for us to find our party. As it was, we followed down our footprints in the sand, and, coming to the rocky region, steered our course by the smoke which rose from the fires of our people. Reaching our party, they looked at us inquiringly, as much as to say, 'Well, what success ?' Tofiki threw down the burden of snow, saying, 'There's the white stuff ; look at it. Kibo is beaten at last !' When I took the snow and began crunching it, as if it were the greatest delicacy, the men looked at each other as much as to say, 'What uganga is the Mzungu up to now ?' while some said, 'Who ever saw a man eating stones before ?' Alkma stared and gaped, looked first at the snow and then at me ; but remained dumb with astonishment. 'Luma (eat) yourself,' I said. He looked afraid, but after a while, putting it to his mouth, he instantly shouted, 'Mringa ! mringa ! (water ! water !) Let us take it to the mange !' 'Yes,' said my guide ; 'and I shall take some to the coast, where I shall sell it for medicine ! Everybody will want a piece of the white stuff that came from Kilima Njaro !' I told them it would melt before we could reach Moche ; but they smiled incredulously, saying, 'Who ever heard of stones melting ?' It was broken up and put into one of the calabashes. Tofiki and I were feeling all right again now ; no sooner had we entered the lower stratum of the atmosphere than

our strength returned to us, and we felt quite new men.

Now for our rush down the mountain. Down, down, over steepes we should never have thought of ascending, we hurried at headlong, and almost dangerous speed, till we reached the forest, where, 'in thick shelter of black shades embowered,' again we spent another night. We did not get much sleep, for the Wachaga spent the time in singing, and they made the forest ring with their wild music.

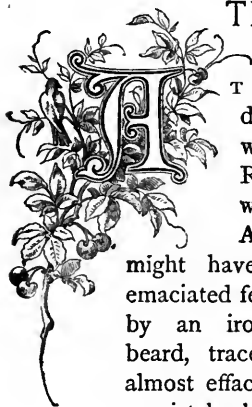
Next day, reaching the border, the natives performed a ceremony to disenchant us, and our whole party was christened with a professionally prepared liquor, supposed to possess the potency of neutralizing

evil influences, and removing the spell of wicked spirits.

At camp we were very heartily received, the people crowding about us in large numbers to hear the news. None were more curious than the mangle. He was very disappointed to hear that the 'white matter' was not silver. 'But,' said Mtema emphatically, 'it is water, mangle! nothing but water, mangle! There it is in the calabash; look at it, mangle.'

The stones and plants which we had brought down with us were closely examined; they were quite unknown to the people, and greatly astonished them. They left the camp, saying, 'The white man is Eura!' (a god.)"

THE PIRATES' TREASURE.



At a fort in Florida, during the Seminole war, a man named Richard Blount lay wounded and dying.

A keen observer might have discerned in the emaciated features, well covered by an iron-grey, untrimmed beard, traces of refinement—almost effaced, it is true, by the unmistakeable mark of a turbulent and perhaps criminal career.

The surgeon in charge of the stockade seemed a man of warm heart and tender sympathies, which had not been blunted by familiarity with suffering. He carefully tended the dying soldier, doing all in his power, by words and actions, to soothe his last hours. This kindness was not without results. Impressed by attentions to which he had long been unaccustomed, Richard Blount—taciturn and reserved by habit, if not by nature—grew more communicative, and, at the last, made certain revelations concerning transactions of which no other living man had any knowledge. One afternoon

as the sun was setting red and broad in a burning haze behind the motionless palmettoes, and the mocking-bird was pouring forth his wealth of music by the still bayous where the alligator basked unmolested, Richard, who was feeling stronger than usual, after a period of silence and mental struggle with himself, said: "Doctor, you've been mighty good to me. You are the first person who has spoken a kind word to me for many years. I've led a hard life of it, and very likely don't deserve any better than I've received; yet I can't forget that I was once a better man, and used to kind words from those who loved me. And now, although I am both poor and forsaken, yet believe me when I say that it is in my power to make you as wealthy as your wildest fancies could desire. I was born in England; I have not a single relation now living, and to you it can be of no consequence what were the circumstances of my early life. It is enough to say that I was the younger son of a good family, and was destined to the Church, for which I was totally unfitted. I was sent to Oxford. but an insatiable

thirst for adventure caused me to run away. After various fortunes in many parts of the world, in which the cards were generally against me, it was at last my luck to find myself shipped with the crew of a pirate schooner, and a motley set we were—Spaniards, Englishmen, Frenchmen, Italians, Yankees, Greeks—men of all races. Two or three years I sailed in her, boarding and burning vessels in the Spanish Main. At length a rumour reached the nest of pirates to which I belonged that the English Government was about to take vigorous measures to capture our vessels and destroy our rendezvous. As we had for a long time been very successful, without any serious molestation, there was all the more reason to believe the report. A council of war was held, in which words ran high; but it was decided that, as our rendezvous was well known, and would most likely be attacked first, and we should be unable to defend ourselves successfully against such forces as could be sent against us, we ought at once to remove our possessions and conceal them for a while in some unknown hiding-place. With us, to decide was to act; and without further delay the treasure, which was enormous, being the accumulated spoil of many hard fights and scuttled ships, was stowed in the holds of our vessels.

A little water, surgeon, if you'll be so good.

So immense," continued Richard, after a moment, "was the stock of dollars and doubloons and jewellery, that no other ballast was needed for the schooners. When everything was on board, we set fire to the cabins on shore, and by the glare of the burning houses dropped down the lagoon and made an offing. We headed for the coast of Florida, and, the moon being at the full, shoved the schooners into an inlet, whose whereabouts was known to one of our captains, a native of Florida, son of a wrecker, I think. It was a very quiet part of the country, without so many people as there are about it now. We had sent some men ashore in the morning to

find the exact entrance, and after dark they lit a fire on the beach, so we knew just where to run in the schooners. At daylight we sailed a long way up the bayou, winding about from bend to bend, with sweeps or tacking along the shore, and blazing the trees as we went along, until we came to a clearing in the woods, where the trees seemed to have been felled by a hurricane. It was gloomy and silent enough—a solitude which we disturbed perhaps for the first time. Here we made the vessels fast to the trees, and all hands went ashore. We made tents of old sails, and in a few hours, to see the smoke streaming up among the trees, and see the boys capering after squirrels and climbing after birds' nests, or flinging sticks at the alligators, you would have thought it was an old settlement."

After a brief interval of rest, Richard went on: "When the provisions and everything else had been taken out of the schooners, we hove out the ballast (you remember it was dollars), and carried it into the middle of the clearing. Each man put his share into an earthen pot; his name, written on a bit of parchment, was placed inside, and his initials were scratched on the outside; and it was then sealed up carefully. The pots of gold and silver were then buried in a circle in holes dug tolerably deep in the ground, and every man planted a small tree over his treasure. Our common stock of treasures we next sealed up in a large jar, and buried this in the centre of the circle, and planted a good sized tree over this also. After we had secured our valuables, as considerable time had been lost in doing all this, it was decided that the schooners should go off on another expedition at once; and they put to sea, leaving a few men under my charge to look after the camp and the treasure. Several weeks went by, and no news came from the absent schooners. Our stock of provisions began to run low, and it was impossible to get anything in that desolate maze of a morass, overgrown with tangled forests, and cut up by muddy streams and

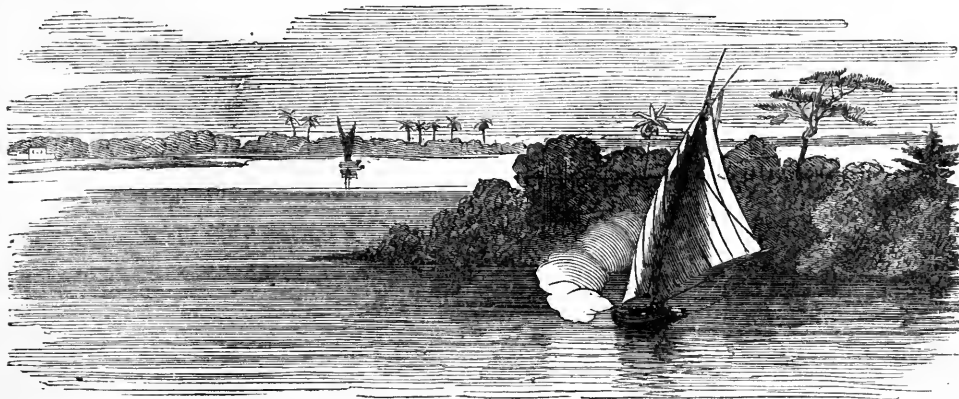
bayous, especially as we had planted nothing in the clearing and had not cleared any more of the land, as we expected that, of course, the schooners would soon return with a fresh stock. We had always been so lucky that not a soul of us dreamed of any trouble. Anyhow, the schooners never came back, nor did I ever afterwards get any clue to their fate. They were probably captured and burned, or more likely foundered in a hurricane.

The rainy season was coming on, and before long, several of our number had fallen off with starvation and disease. My comrades and I talked over the situation, and finally concluded to look out for number one, and leave the treasure to take care of itself. Well, we had a ship's boat with us, and one day, after putting a few muddy biscuits in our pockets, we took to our boat and followed the bayou until we came to the sea. Then we skirted the coast until we reached a settlement, and after that separated in different directions, for there was no tie of friendship to bind us, and we each had a sort of dread that the others might in some way betray him. For years after I wandered about the country, sometimes on the frontier, until I enlisted in the army, not caring much what became of me; but half hoping that perhaps I should be sent to Florida, as turned out to be the case, to fight these Seminoles, and so perhaps catch a chance to look up the treasure we had buried in the forest. I never had had the ready money nor, I'm not ashamed to say, the courage to go back alone to that spot; but I got this shot in the leg, and here I am, and much good that treasure has done me! But it don't seem quite the thing, you see, that all that money and treasure should be buried there and be of no kind of use to anybody; and as you are the first and the last person that's been kind to me these many years, I'll trust to you to see that I have decent burial, and will tell you just how to go to find the treasure. It's all truth I've been telling you, and you needn't be afraid I'm spinning you a fore-castle yarn; but just do

as I direct you to do, and it'll make you the richest man in the country, and I don't know who deserves it better." Richard Blount, after this, gave the surgeon very minute directions as to how to go in quest of the treasure. On the next day the pirate died. As soon after this as the surgeon could get leave of absence, he made arrangements with a friend to go after the supposed mine of wealth concealed in the forests of Southern Florida. He could not quite believe the story; but the circumstances under which it had been disclosed, and the fact that money had often been concealed by the freebooters of the seas, made it sufficiently probable to warrant chartering a small, light-draught schooner, and engaging a crew of blacks able to work the vessel and willing to dig in the mud after gold. It was only by a very close and tedious observation of the coast that the mouth of the bayou was found. On entering it from the sea, the line of trees which had been blazed was also discovered with some difficulty, and traced from bend to bend in the dusky light of the primeval forest. Guided by this clue, often but faintly distinguishable, the treasure-seekers, after slowly sailing along the devious mazes of the silent waters of the wilderness until they almost despaired of reaching the end in view, at last burst suddenly upon a sort of clearing in the dense mass of vegetation, overgrown with trees of younger growth, arising from which a circle of larger trees could be distinctly traced, with a central shaft lifting its feathery tuft of foliage far up into the blue sky. Tent-stakes and other relics of extinct life were also visible amid the rank grass which overgrew the soil. Everything, thus far, had proved exactly as described by Richard Blount; and it was reasonable to suppose that, as the story had been found to tally in the minute of details with facts, it would continue consistent throughout. It was therefore with renewed zest and with the burning impatience which tortures the soul when one is confident of the result, and sees the desired object almost in his grasp,

that the doctor seized a pick-axe, and, ordering his men to follow suit, broke ground in the last stage of the quest after a treasure which his fevered fancy pictured as more and more colossal as the rapturous moment approached when it would be opened to view. Such was his impatience, that he was the first to make a discovery. The point of the pick, after turning up the soft soil almost noiselessly for some anxious minutes, at last struck something hard with a most decided click. The next stroke the sound was repeated, and, at the same time, a bit of red pottery was thrown up. The doctor, perspiring with excitement, flung aside the pick-axe, and, falling on his knees, began to draw out the earth with his hands, while every one stopped his work and looked on with breathless expectation. It took but a minute to bring to light an earthen jar; but on trying to raise it they found it was cracked in several pieces, and that the bottom had fallen out. What was more important, the jar was empty! There was a disappointment to be sure! But they would not yet give up heart. There were still many jars, and perhaps this one was only a "blind"; but jar after jar was turned up, and all were found more or less broken, and not a dollar did one of them contain. Last of all the searchers cut down the central tree and unearthed the large jar over which it stood. This also, crowning disappointment of all, was in the same condition, and contained only earth-worms. Baffled, but not quite

disheartened, the treasure-seekers, as a last resource, dug several feet below where the central jar had been. They did not find the treasure they sought; but they ascertained where it had gone. They came to water, and thus discovered the solution of the mystery, and what had robbed them of the gold. They stood on a mere alluvial crust of oozy soil, under which the water percolated at some depth below. The moisture of the earth had softened the jars, and the weight of the treasure had carried away the bottoms and caused it gradually to sink lower and lower as in a quicksand, until it had dropped into the water and, of course, out of sight. There was nothing more to be done but to abandon further operations for the time, as such a result had not been foreseen, and the means for raising the money were not at hand. But the following year the doctor returned to the bayou with a pumping machine and ample apparatus for his purpose; and after much labour was partially rewarded for his trouble. Doubloons and guineas, vases and caskets of precious metals elaborately chased, the handiwork of skilled artisans of various races and ages, and gems of price which had long lain concealed in the slime of the forest, again flashed in the sunbeams. But all the lost treasure was not regained; some of it eluded the closet scrutiny of avarice or enterprise, and still lies buried for ever under the waters and the sod of Florida.



LIGHTS IN THE SEA.



NEARLY two centuries have passed since the earliest English lighthouse was erected off Ram's Head, on the coast of Cornwall, by Winstanley. The old Eddystone did good service at a time when science was in its infancy, and when a lighthouse was indeed little more than a house with a light in it. It was begun in 1696, completed in 1699, but was not destined to last long; and superstitious people saw something ominous in the fact that when it was destroyed its daring constructor perished with it. It had resisted the waves for fourteen years. But the terrible storm of 1703 proved too much for it. Attacked simultaneously by wind and sea, it went to pieces; and for some two or three years afterwards the place where the Eddystone Lighthouse had stood was marked only by ruins.

In the case of constructions and devices of all kinds out of the ordinary way, it is a common belief that the thing devised will somehow "return to plague the inventor." The maker of the Brazen Bull is reported to have been roasted to death in his own diabolical contrivance; the Russian architect who built a more grotesque church than it seemed possible that any one else could construct, was blinded, that he might not repeat his ludicrous masterpiece elsewhere; and people say to this day, in France as in other countries, that the benevolent Dr. Guillotin was one of the first victims by the decapitating machine which, to his infinite disgust, was christened by his name, and which, though not its inventor, he had, in fact, from motives of humanity, recommended for general use. A couple of centuries ago, such a lighthouse as that which Winstanley had built on the reefs and

rocks of the Ram's Head, and which he seemed to have raised up from the midst of the ocean, had a phenomenal and even a portentous aspect. He had not, indeed, built a Tower of Babel. But against irresistible natural forces he had erected what many regarded as a tower of defiance; and to these it seemed quite in the way of Providential retribution that the pretentious erection should be overturned by the offended elements, and its author crushed beneath the ruins of his own design.

But the Eddystone Lighthouse had already proved of the greatest value; and remembering how many ships and how many human lives it had helped to save, Parliament, in 1706, ordered a new one to be built at the public expense. The second Eddystone Lighthouse, constructed by Rudyard, was finished in two years, and in 1708 was formally opened. Rudyard's edifice, like its predecessor, seems to have been solidly built, so far as regards its capability of resisting the waves; nor did the winds of heaven prevail against it. It apparently, however, had occurred to no one that a lighthouse might possibly be consumed by fire. The second Eddystone Lighthouse perished, all the same, by flames—a more ominous kind of destruction by far than that beneath which the first lighthouse had succumbed. The burning of the Eddystone Lighthouse was one of those catastrophes which no human foresight could have kept in view as existing even among the distant possibilities of the future. But when once the inside scaffolding and woodwork had caught fire, it was as difficult to extinguish the conflagration, as at sea it often is to put out the fire raging in the interior of a burning ship. If a lighthouse could be built to withstand the united attacks of wind and waves, it ought to be easy enough to construct one which, being far out at sea, would be in no danger of

catching fire; and the lighthouse now standing, of which the first stone was laid in 1757, and which, under the superintendence of the engineer and architect Smeaton, was completed in 1759, has at least escaped any such catastrophe as, in one shape, befel the lighthouse of 1698, and in another that of 1708. Even stone and granite, however, will not last for ever, and the rock upon which the solid masonry of Smeaton's monument is erected is beginning to give way. The millions of tons of water which for countless ages have been hurled perpetually upon the granite of the Eddystone Lighthouse have naturally done their work. The hour has come when this most solid of solid structures begins to show signs of decay. This time neither wind nor fire, but the natural enemy against which all lighthouses are especially built up, has done the harm. The sea has shaken the foundations of the building, and, to some extent, washed it away.

Under these circumstances the question has arisen whether, instead of erecting a new lighthouse, the danger which for the last two hundred years the Eddystone Lighthouse has served to point out might not itself be removed. The flame of a lighthouse is not a burning invitation, like Hero's torch, but a solemn warning of perils to be avoided; and it seemed to certain ingenious persons that if the source of the peril could be done away with, all necessity for a successor to the failing Eddystone Lighthouse of the present day would be at an end. Against this somewhat wild suggestion the Corporation of the Trinity House has reported in strong terms. The Corporation will not advise the expenditure of any further money for the purpose of blasting the rocks whose presence the Eddystone Lighthouse indicates. It did not seem worth while to consider in detail what the cost of removal would probably be. But according to the general estimate of one engineer, Mr. Douglass, it would be necessary to blow up about one hundred thousand yards of rock, or a weight of something like one million seven hundred

and fifty thousand tons, in order to get rid of the particular danger which the Eddystone Lighthouse signalises. An "inner danger," however, would also have to be dealt with; and, on the whole, a sum of at least five hundred thousand pounds would have to be spent, when it would still be necessary to erect some kind of lighthouse in order to guide vessels about to enter Plymouth harbour. The famous structure, then, must be rebuilt; and modern engineering should give us a better lighthouse, and modern chemistry a better light, than any yet seen off the coast of Cornwall or elsewhere.

Skerryvore Lighthouse is situated far out in the Atlantic Ocean, fourteen miles from Tyree, the nearest land. It is built in the form of a tower, on the Skerryvore,—signifying in Gaelic the Great Rock,—which is surrounded for miles by numerous outlying rocks. The Skerryvore is five or six feet above high-water of spring tides, and the tower rises from it one hundred and thirty eight feet. The lantern on the top of the tower is one hundred and fifty feet above high water level. Looking up at the lighthouse from the sea, it presents a magnificent sight—so lofty, so perfect in its proportions, and tapering so gracefully from basement to summit. It is constructed of immense blocks of stone dovetailed and fastened together. The three lowest courses are of Hynish gneiss, and the remainder of Ross of Mull granite. It was designed by, and erected under the personal superintendence of, Mr. Alan Stevenson, son of Mr. Robert Stevenson, engineer of the Bell Rock light house.

Sir Walter Scott visited the rock, in the autumn of 1814, along with Mr. Robert Stevenson and the Commissioners of Northern Lighthouses. After humorously describing the landing, he observes in his journal, "We took possession of the rock in name of the Commissioners, and generously bestowed our own great names on its crags and creeks. The rock was carefully measured by Mr. Stevenson. It will be a most desolate position for a lighthouse—the

Bell Rock and Eddystone a joke to it, for the nearest land is the wild island of Tyree at fourteen miles' distance. So much for the Skerry Vhor."

The height of the respective towers of the three rock lighthouses referred to by Sir Walter, is as follows:—Eddystone, 68 feet; Bell Rock, 100 feet; Skerryvore, 138; while their dimensions in cubic feet are:—Eddystone, 13,343; Bell Rock, 28,530; Skerryvore, 58,580.

The erection of Skerryvore Lighthouse was authorized by an Act of Parliament passed in 1814, but so formidable did the work appear that a survey of the rocks was not made until 1835. Operations were commenced in the summer of 1838 by the erection of a temporary barrack for the workmen. The framework of this was completed in the end of the autumn, but was entirely destroyed in a storm in the following November. A new barrack was thereafter put up, perched forty feet above the rock, and was occupied for the first time on 14th May, 1840, by Mr. Alan Stevenson and thirty men.

Mr. Alan Stevenson, in his interesting account of the lighthouse, gives a graphic description of the life in this barrack. "For several days," he says, "the seas rose so high as to prevent our attempting to go down to the rock; and the cold and comfortless nature of our abode reduced all hands to the necessity of seeking warmth in bed, where (rising only to our meals) we generally spent the greater part of the day, listening to the howling of the winds and the beating of the waves, which occasionally made the house tremble in a startling manner. Such a scene, with the ruins of the former barrack not twenty yards from us, was calculated only to inspire the most desponding anticipations; and I well remember the undefined sense of dread that flashed across my mind on being awakened one night by a heavy sea, which struck the barrack and made my cot or hammock swing inwards from the wall, and was immediately followed by a cry of terror from the men in the apartment above me, most

of whom, startled by the sound and tremor, immediately sprang from their berths to the floor, impressed with the idea that the whole fabric had been washed into the sea." The work on the rock was very laborious. It commenced at four in the morning, continuing until eight, when half an hour was allowed for breakfast; after which it was carried on till two, when another half-hour was taken for dinner; and the work was again resumed and continued till seven, eight, and even nine o'clock, when anything urgent was in hand. Mr. Stevenson, after remarking that such protracted exertion produced a continual drowsiness, and that he repeatedly fell asleep in the middle of breakfast or dinner, adds, "Yet life on the Skerryvore Rock was by no means destitute of its peculiar pleasures. The grandeur of the ocean's rage, the deep murmur of the waves, the hoarse cry of the sea-birds which wheeled continually over us, especially at our meals, the low moaning of the wind, or the gorgeous brightness of a glassy sea and a cloudless sky, and the solemn stillness of a deep blue vault studded with stars, or cheered by the splendours of the full moon, were the phases of external things that often arrested one's thoughts in a situation where, with all the bustle that sometimes prevailed, there was necessarily so much time for reflection."

The excavation of the foundation of the lighthouse tower was a serious operation. A horizontal cut was first made so as to lay bare a level floor of sufficient extent to contain the foundation pit. This operation occupied 30 men for 102 days, and required the firing of no fewer than 246 shots, chiefly horizontal, the quantity of material removed being about 2,000 tons. When the floor had been roughly levelled a foundation pit was marked out, 42 feet in diameter, on one level throughout. The pit was then excavated to the extent of 15 inches or so, and the circle prepared for the reception of the first course. This second operation occupied 20 men for 217 days.

The building of the tower was commenced

on 4th July, 1840, and the mason work was completed on 25th July, 1842. The large blocks of granite were obtained from the Ross of Mull quarry, and after being roughly formed into blocks were shipped for Hynish, distant about twenty-six miles; and they were dressed there in such a manner as to avoid the necessity of any fitting on the rock. This operation required great care, and occupied much time. For example, the dressing of each centre stone of the floors into which the others were dovetailed occupied one man about three hundred and twenty hours.

The next year, 1843, was spent in fitting up the interior, and the light was first exhibited to the mariner on 1st February, 1844.

Taking into account the money expended on the harbour for the lighthouse tender and other incidental expenses, Skerryvore lighthouse cost in its erection £86,977 17s. 7d.

The light is on the dioptric or lens system, the rays of light being deflected into the proper direction by passing through lenses of the finest glass. It is a revolving light of the first order, appearing at its brightest once a minute, and is visible for eighteen nautical miles. The lighting apparatus consists of eight large annular lenses attached to a frame resembling an octangular drum, which revolves round a fixed central lamp by means of clockwork. The lamp contains four concentric wicks, and the oil is made to flow copiously over these to prevent their being charred by the great heat evolved during combustion. The average consumption of oil in a light of this description is 760 gallons of colza or 800 of paraffin oil in a year.

There are four light-keepers attached to this lighthouse, three of whom are always on the rock, and the fourth on shore. Their families reside at the relieving station at Hynish in Tyree. Each light-keeper remains six weeks on the rock and two on shore—a small steamer taking out to the rock the light-keeper on shore, and carrying back another to the station every fortnight, if the weather permits. The life

on the rock would seem to be very monotonous, but many of the men prefer Skerryvore to other stations. The pay is higher—the principal light-keeper's pay and allowances amounting altogether to about £120 in value—and the fortnight's holiday on shore is much appreciated.

The lighthouse consists of solid stone for the first twenty-eight feet, and entrance is obtained to it by a door at the top of this structure. The ascent to this door is by a ladder of gun-metal, which runs perpendicularly up the side of the tower; and a winding ladder inside leads to the various apartments above.

The first room, entering from the outer door, is a store for goods; the second, on the floor above, a store for coals; the third, a workshop; the fourth contains a stove; the fifth is a kitchen; the sixth and seventh are sleeping apartments; the eighth, a library; the ninth, an oil cellar; and the tenth, the light-room.

A short time previous to our visit the tower was struck by lightning. When this happened one of the light-keepers was sleeping in bed, and was suddenly awakened by a loud report, which he imagined at the moment to have been caused by the explosion of paraffin oil in the light-room. He immediately rushed there and found everything right; but the second light-keeper, who was at his post watching the lamp, had heard the report, and was also much alarmed. He then descended the tower and found the third light-keeper lying senseless on the floor of the first apartment. The latter had been standing close to the entrance door, when he was struck by the lightning and thrown to the inner end of the room. After some time he recovered consciousness, but he was quite deaf for several weeks. On examining the inside of the tower a considerable portion of the thick iron stove-pipe was found shattered into fragments, but little damage otherwise was done. Whether the lightning entered the building from above or from below still remains a mystery. But it was fortunate that the light-keeper was thrown inward

and not outward through the door, for in the latter case he could not have escaped being killed by falling on the rock below.

The light-keeper in his solitary watch in the light-room is sometimes visited by large flocks of woodcocks, thrushes, larks, and other birds. These, driven at night by wind from the land, or attracted by the dazzling light, sometimes strike against the lantern with great force and are killed. Large sea-birds also, hurried onward by the gale, occasionally strike against it, shivering the thick plate-glass to pieces, and falling dead on the light-room floor.

The force of the waves in a storm is very great at Skerryvore, exposed as it is to the full force of the wide Atlantic. Mr. Thomas Stevenson constructed a marine dynamometer which registered the force of the waves that struck it. It was found from observations made by him with this instrument at Skerryvore, that the average force of the waves during five of the summer

months of 1843 and 1844 was 611 lb. per square foot. The average force for the six winter months of the same years was 2,086 lb. The greatest result obtained at Skerryvore was on 29th March, 1845, during a heavy westerly gale, when a pressure of 6,083 lb.—nearly equal to three tons—per square foot was registered.

In the German Ocean, according to observations made by Mr. Thomas Stevenson at the Bell Rock, the greatest result obtained was a pressure of 3,013 lb. per square foot.

There is a hole in the rock at Skerryvore, not far from the landing-place, into which during a storm the surge rolls with such force that it is immediately shot out again, making a loud report like a cannon.

On leaving the rock we observed one or two sea-gulls hovering about. The light-keepers told us they gladly welcomed them, as they were sometimes the only living creatures they saw for several days together.



AN ACRE OF SILVER.

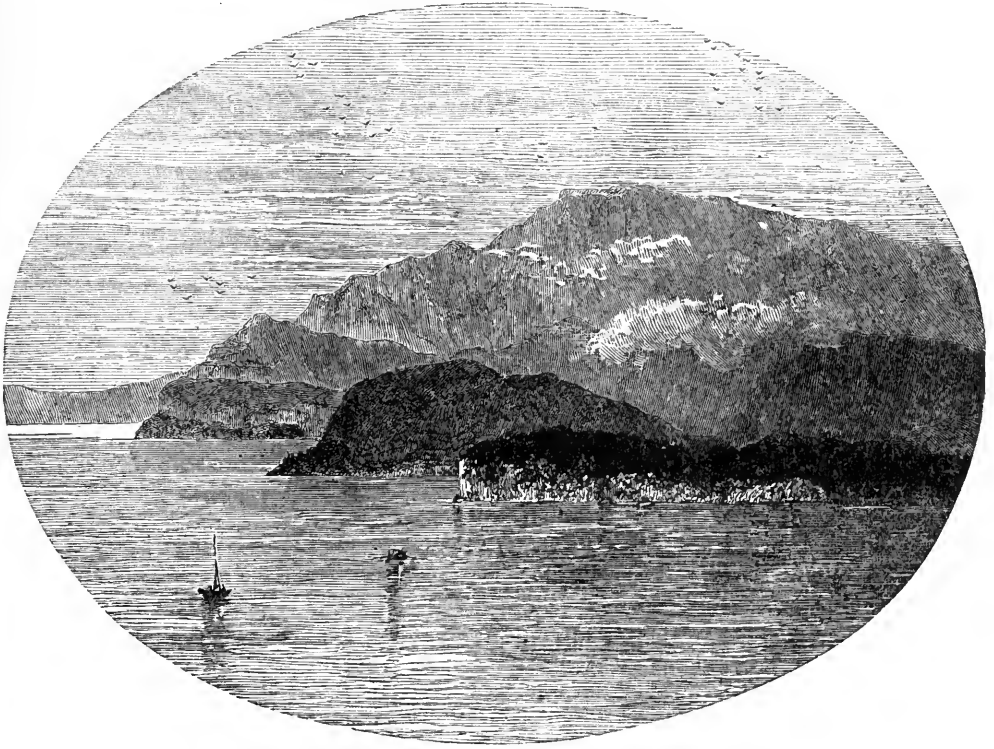
ONE of the most remarkable silver mines in California is called the "Gulch." The ore here yields from 240 to 270 ounces of silver to the ton, and lies like a coal bank in a stratification of limestone, dipping about 15 degrees. Two openings have been made at points 600 feet apart, and sufficient ore is in sight to make millions of dollars. The

owners have gone far enough to know that there is a *full acre* of the ore in the one solid body, and some conception may be formed of the amazing richness of this discovery by a brief calculation of its dimen-

sions. A cubic foot weighs 170 pounds, and, as the ore lies, 12 cubic feet make a ton. There are 43,560 square feet in an acre; and the acre of ore, being three feet in thickness, makes 130,680 cubic feet, which, with 12 cubic feet to the ton, makes 10,900 tons, worth \$250 per ton, or the enormous value in the aggregate of \$2,700,000.

The "Crescent" is another mine in which the silver is worked like a coal bed, the ore lying horizontally in the large room that has been opened, the roof being held up by heavy timbers with very stout caps and tugging poles. The ore breasts from a foot to three and four feet, and occasionally, here and there, very fine specimens of pure horn silver are found.





RAWLINSON MOUNTAINS, ON LAKE TANGANYIKA.

From a sketch by Lieut. Cameron.

THREE THOUSAND MILES ON FOOT.

CAMERON'S WALK ACROSS AFRICA.



HIS intrepid young hero, who went out to Africa in connection with the Livingstone Search Expedition, and whose subsequent successes as an African explorer and discoverer have conferred such honour on himself and on his country, is the son of a clergyman in Kent. He entered the Royal Navy in early life, and possibly might have passed a very uneventful career had he not conceived the idea of offering his services to go to

Africa in search of Dr. Livingstone. Lord Palmerston once said that "whenever he wanted anything done, and done well, he put the business into the hands of a naval officer. They were men," said he, "who would go anywhere and do anything;" and most certainly this is true as regards Lieutenant Cameron.

Cameron proceeded, in the first instance, to Africa on behalf of the Livingstone Search and Relief Expedition. After Dr. Livingstone's death he undertook an exploration on his own account, under the auspices of the Royal Geographical Society, and his first important discovery was that

of an outlet from Lake Tanganyika flowing apparently to the great Lualaba of Livingstone. He left Ujiji in March, 1874, with the view of tracing down the outlet from Tanganyika to Lualaba, pursuing its course, supposing it to be the Congo, as far as the western coast of Africa. The journey on which he then entered with little preparation, except an ardent desire to explore Africa, was one of extreme danger. Should he, indeed, succeed—single-handed as he was—in crossing the African continent through a country unknown, and beset by wild and hostile tribes, he would have accomplished a feat unparalleled in the annals of geographical discovery, and take his place in the first rank of African explorers. In carrying out this programme he fairly crossed the continent of Africa, travelling on foot upwards of 2950 miles, from Zanzibar to Benguela, trusting to mere accident as he went along. In making that transit he traversed 1200 miles of entirely new country. He was, further, able to make a series of most extensive and elaborate observations. He has laid down, for the first time, a sound geographical basis for further observations.

At a special meeting of the Royal Geographical Society, presided over by the Duke of Edinburgh, Lieutenant Cameron gave the following *résumé* of his journey: "The first portion of the journey may be considered as that from the east coast to Ujiji. The expedition consisted originally of Dr. Dillon and myself; at Aden, Mr. Murphy, of the Royal Artillery, volunteered, and joined us afterwards at Zanzibar, and a day or two before leaving Bagamoyo, Mr. Moffat, of Natal, a nephew of Dr. Livingstone, also joined. My first great difficulty was to provide porters to carry our stores; and after nearly a month at Bagamoyo I formed a camp at Shamba Gonèra to try and keep the men together, but with no good results.

In the middle of March, 1873, Dillon started to form a camp at Kikoka, the farthest Balooch outpost of Seyyid Burghash, and a little beyond the Kingani.

A few days afterwards Sir Bartle Frere came over to Bagamoyo, bringing Moffat with him. Two days afterwards I joined Dillon at Kikoka, leaving Murphy ill with fever under charge of the French missionaries at Bagamoyo. The French missionaries were most kind and hospitable during our stay, and they are doing a very good and important work in the country. They have a large number of pupils, who, besides being Christianized and taught to read and write, are also instructed in the ways and means of earning their livelihood in after-life. There was a great deal of opposition amongst the Waymerima, owing to an idea (which pursued us to Unyanyembé) that we were personally engaged in putting down the slave-trade, though the higher class Arabs were friendly to us. Moffat accompanied me to Kikoka, and then returned to Bagamoyo to assist Murphy.

On March 28th, 1873, Dillon and I started from Kikoka, but had to leave many loads behind, owing to the porters having got back into Bagamoyo, notwithstanding my having paid the guard at the Kingani to prevent their crossing. From Kikoka, Dillon and I marched to Msuwah, across an almost uninhabited country, with park-like stretches of open grass, clumps of fine trees, and strips of jungle, and here and there intersected by nullahs, which, after heavy showers of rain, became considerable streams. We were detained in one place some days trying to get food, which was very scarce, and the villages lay some way from the road. I went out once to look for it, but, owing to trusting to Bombay, lost the track, and had to sleep in a swamp, amid pouring rain; in consequence of which I was laid up with fever until our arrival at Msuwah. At Msuwah the country began to rise more decidedly than it had hitherto done. There was a good deal of cultivation about, but the villages were in dense clumps of jungle, and very few strangers are allowed to enter them. We formed our camp close to the village of the chief, and were initiated into paying tribute, having to give 30 dotis to a smiling old villain.

From Msuwah we travelled on with an Arab caravan till past Simbawéni, crossing the Lugereugeri on our third march, and going through a pass in the Duthumi hills, and then through a well-cultivated fertile valley full of small conical knolls, and by another pass on to Simbawéni, and then across the Lugereugeri a second time. From here we followed the same route as Stanley to Reheneko, on the other side of the Makata. At Reheneko, Dillon and I halted for a month, to wait for Moffat and Murphy, at the end of which time Murphy came up alone, bringing the sad news that Moffat had died before crossing the Makata. Poor young fellow! his whole heart was in the expedition. He had sold his all—a sugar plantation at Natal—and was willing to expend the last farthing in the cause of African exploration. Murphy himself was very ill when he arrived. After a few days' halt, to enable him to recover his strength somewhat, we started across the Usagara mountains, and then passed Miunyi Useg-hara, up the valley of the Mukoudokwa, by the same route as Stanley to Lake Ugombo, and then across a rough, waterless country to Mpwapwa. At Mpwapwa were three or four caravans of different sizes, and one of Wanyamwezi would have been robbed if I had not interfered to prevent it. From Mpwapwa we went on across the Marenga Mkali, and to obviate the inconvenience of being without water for two days, I filled four air-pillows with water which held three gallons each. After the Marenga Mkali we arrived at Moumé, the first station in Ugogo, and came into the full swing of tribute-paying, and were detained three or four days before it could be settled. The first day, the chief and all hands were drunk, and the next day the chief would only receive the tribute through his prime minister, and he was too drunk to transact any business; and so on from day to day.

There is no passing through Ugogo without paying tribute; for, although the people do not as a rule fight, if the demand is resisted they carry off all they can of their provisions and stores, destroy their houses

and all they leave behind, fill up their waterholes, and retreat into the jungles, and leave the strangers to die of thirst and starvation, assured of being repaid by the stores, which are certain to be abandoned, for any losses they themselves have incurred. This occurred two or three times when Arab caravans have attempted to avoid paying mhongo. Soon after Moumé we struck Burton's route at Kanyenyé, or Great Ugogo, where the same chief (Mogamba) reigns as was there in his time. From Kanyenyé we went on rising, at the end of the plain which leads up a steep wall-like range of hills to another plateau. On this plateau we went through a range of hills formed of blocks and boulders of granite piled about in the wildest confusion, and came to Usekhé, where we camped close to the largest boulder of granite that, up to that time, I had ever seen.

Here again tribute, drunkenness, and delays, and then on our march to Khoko, where some Wamerima are settled, and where we camped under one of three enormous trees—our own caravan, and others accompanying it, in all amounting to about five hundred men, camping under one tree.

From here was one march to Mdabaree, the last district of Ugogo, and where we finished with mhongo for the time being. As we were a short way from where white men had passed before, the chief's headman said we had to stop till all the people had seen us; in fact, he made a raree show of us.

We now entered on what used to be dreaded as Mgunda Mkali, or fiery field, but which now is far easier to traverse than it was in the days of Burton and Speke. After a few days we came to Jiwé la Singa, where there are almost as many fantastic boulders as near Usekhé, the name of the place meaning the rock of soft grass. From here we marched through a wild and uninhabited country, with much game, but very wild and scared, making longish marches on account of the scarcity and badness of the water.

On July 31 we reached the village of the chief of Urgu. Here we stopped

one day to buy food, as our provisions were exhausted, and for the first time camped in a village. Our tents were crowded all day long, and at night we found that they had left many small but disagreeable inhabitants behind them.

From here to the outlying villages of Unyanyembe was four long marches through uninhabited country. At the end of the second we camped at a place called Marwa, where water is only to be obtained by digging at the base of a boulder, and no one is allowed to say maji—the common word for water—to fire a gun, or walk by with sandals or boots, for fear of offending the fiend in charge of the spring, and causing him to stop the supply of water.

The next morning, as Dillon and I were out on one side of the track looking for game, we saw a couple of lions about 600 or 700 yards off trotting quietly home after a night out. The same afternoon we heard an alarm of 'Ruga, ruga!' or robbers, and going to the front found that a small party had been robbed of some ivory and two women slaves, and had had a man wounded. Our men were in a great funk, but we managed to get them along, and about five p.m. we arrived at a large pond, camped, and fenced ourselves in. In the early part of the night a few arrows were shot into the camp; but we kept watch ourselves, and made our men do likewise, and so the rest of the night passed without further alarms.

The next day we arrived at the outlying villages of Unyanyembe, and on Aug. 5th we marched into Kwikuruh, its capital, and were entertained at breakfast by Said ibn Salim ibn Raschid el Lamki, the Arab governor, and thoroughly did we enjoy our good breakfast after the scanty fare on which we had been living. After breakfast, he and many other Arabs escorted us to the house where Stanley had lived, and which was now lent to us by Said ibn Salim. After a couple of days we had to pay a round of visits to all the principal Arabs, and eat with all. This was a very formidable undertaking, as we had to eat something with each to avoid giving offence, and

this lasted from ten a.m. till four p.m. A day or two afterwards I was knocked over by fever, and Dillon and Murphy soon followed suit.

About the 21st of August a letter from Sir Samuel Baker arrived in charge of some of King Mtesa's men, and I sent a letter back by them. We were delayed by fever, blindness, and other illnesses till the end of October—and also by desertion of men—when Chumah and another man arrived, bringing the news of Dr. Livingstone's death, and saying that his caravan was near. I instantly sent off a large bale of cloth to assist them. When the body of Dr. Livingstone arrived, all the principal Arabs assembled at our house to show respect to his memory. A few days after Murphy resigned; and when I was on the point of starting westward, having fitted out Livingstone's men with stores for the coast, Dillon was so ill as to be unable to proceed. After he had decided to return, Murphy volunteered to rejoin the expedition, but, owing to difficulties about stores and porters, I thought it best to go on alone. Dillon and Murphy, with Dr. Livingstone's corpse, left for the coast on the 9th of November, 1873, and the same day I started for Ujiji. I tried to steer straight for Ujiji, but, owing to the fear all my men were in of the ubiquitous Mirambo, and the desertions caused by it, I had to make a considerable *détour* to the south. A few days after I parted from my two companions I received the sad news of Dillon's death. I reached Uganda in the beginning of December, and there found Murphy, who had lost some of his cloth, and had had to send back to the Arab governor for more. After one day at the capital of Uganda I went on west, but two marches out was met by a chief, who said we could not pass that road until he had settled some row with the Arabs at Unyanyembe. This delayed us till the beginning of January.

On January 5th we reached the boundaries of Unyamwezi proper, and then across a large plain and the S'Ngombé, and came to Ugara, in all three districts of

which I had to pay tribute. After Ugara I came to a mountainous country—Kawendi—and running water, the first which I had seen since leaving Mpwapwa. The mountains extend to the borders of the Tanganyika; but at Ugaga we came on Burton's route, and thence, passing just to the north of the Malagarazi valley, we arrived at the Tanganyika by a comparatively easy route. Before reaching Ugaga, however, we had a good deal of trouble, as the guides did not know the road. I was utterly lame from a large abscess on my leg, and therefore unable to take the head of the caravan and direct its course.

On my first view of the Tanganyika I could scarcely comprehend it. Such was the immensity of the view that I fancied the grey lake to be sky, and the mountains of Ugoma in the distance to be clouds. However, it dawned on me by degrees that that was the lake and nothing else. At Kawélé, the capital of Ujiji, I was well received by the Arabs, and after securing the books and other things left here by Dr. Livingstone, I immediately made preparations, and got away for a cruise round the lake. In my cruise I found 96 rivers, besides torrents and springs coming into the lake in the portion I went round, and one—the Lukuga—going out. This river flows to the Lurwa, and joins it at a short distance below lake Moero. As soon as I could get a few stores I returned to Kasengé, the place where Speke landed on the western bank of the Tanganyika.

After leaving Kasengé, we first crossed the southern end of the mountains of Ugoma (although nominally in Uguhha), and many streams flowing south and southwest towards the Lukuga. The first country we passed was Uguhha. The people there are distinguished by the peculiar and tasteful manner in which they dress their hair, and the elaborate tatooing on the women's stomachs. Their clothing then appeared to me remarkably scanty, but, compared with what I saw farther on, was very ample.

From Uguhha we crossed the mountains

of Bambarre, and on arriving at their foot came into a completely new style of country. The huts were all built in long, low streets, and rows of oil-palms were planted down the centre. The women did up their hair in the most extraordinary manner. Many of their head-dresses looked like an old-fashioned bonnet with the back out, and long ringlets hanging down their necks. The men plastered their hair with clay into cones and patches, so that they looked as if they had some sort of helmet on their heads. Between the patches of clay their heads were shaved, leaving the scalp bare.

After having been detained at Nyangwé about three weeks, a party of Arabs came in from the south side of the river, where they had been fighting with the natives, bringing news that Tipo-Tipo was coming. Tipo-Tipo on his arrival told me that if I would come down with him to his camp, some eight marches south of Nyangwé, I should from there be able to find my way to a great lake into which the Lualaba fell. When I reached his camp I found that the chief on the opposite side of the Lomami refused to let me pass, saying that no caravan had ever been through his country, and if anybody tried to pass he would fight them. When at Tipo-Tipo's camp I heard of a lake called Iki, which I believe is the lake Chebungo, or Lincoln, of Livingstone, which is a little to the west of the Lomami and on the Lawembi.

Leaving Tipo-Tipo's, we went nearly south, going close along the right bank of the Lomami. At many places the people were very friendly, but in others so many reports had come that no caravans came near there for any other purpose than getting slaves, that the villages were deserted, and we were often in difficulties about food. As we were passing through a strip of jungle, some people commenced shooting at us, and an arrow glanced off my leather coat. I ran this man down, and gave him a thrashing, but would not allow any one to fire in return, and walked straight up to some people who were in front of us. We tried to make a palaver, in



LIEUTENANT CAMERON'S RECEPTION BY KATINDE.

which, after a time, we were successful, and we went on with the natives as the best of friends. In the afternoon women and children were about our camp selling food, and everybody seemed most friendly. Next morning, as we were packing up for the road, I missed my pet goat Dinah, and, asking where she was, I was told that she slept outside the camp. I went to look for her, and walked up into the village to ask about her, and so little did I suspect any harm that I had no gun or pistol with me, and the man who accompanied me was also entirely unarmed. When we made inquiries about the goat, the natives began shooting at us. Some of my men ran up and brought me my rifle and pistol, and the remainder packed up all our stores and came into the village. For a long time I would not allow my people to fire. At last, as the natives were closing in, and a large body of from 400 to 500 men came up from the road which we had intended to go, I allowed two or three shots to be fired, and I believe one of the natives was then shot through the leg. After this we commenced a parley, and it was proposed that my goat should be returned, and that one of my men should make brothers with the chief, and that we should exchange presents and be good friends. While that was going on another large party came in, headed by a chief, who told the people of the village that they should not be such fools as to make peace with us, as we were a very small caravan, and they would be able to kill or make slaves of the whole of us, and share our beads and stores amongst them. When they arrived the people again began shooting at us. I would not allow my men to fire for fear of breaking off the negotiation, until the men closed in throwing their spears at us. I then fired two or three shots close to some of the natives, set fire to one of the huts in the place, and told the chief that if he did not take his men off I would burn the village down. They had already burned our camp. On this he said that if we went away from the village we could go unmolested. At every

slip of jungle the natives closed in upon us, shooting, and we had two or three men wounded; but it was next to useless returning the fire, as we could not see them, and being short of ammunition I was afraid of wasting it.

At sunset we arrived close to a village called Kamatété (which I afterwards renamed Fort Dinah, in memory of the goat), and I told the guide to say that we wanted to be friends and to camp there. Their only answer was a volley of arrows. As we were unable to stop out in the night in the jungle with all these fellows round us, I called out to my men to follow me and storm the village. Four men followed me; the rest, except one or two men with Bombay, who was told to look after the stores, ran away. Luckily, the natives ran the other way. When we got into the village I burned all the huts down but four, and my men coming up set to work to make a fortification. Here we remained five days. We were being constantly shot at, and some men wounded. We were, fortunately, close to water and plantations of cassava, so that we were well supplied with food and drink. The guide told me we must shoot some of the natives before we could get out of our prison, and at last I was forced to use my gun. The report of my heavy rifle they soon learned to respect. At the end of five days we made peace, they having been frightened by some of their people being killed and wounded. The natives, after the fight was over, offered an indemnity, which, however, I did not accept; but we exchanged presents as a token of friendship. The result of these various interruptions was, that I had to content myself with a distant view of the lake. The fourth section of the journey was from Kasongo capital to the west coast of Benguela. We passed nearly along the watershed between the Zambesi and the Congo until we arrived in the basin of the Kwanga.

I arrived at Benguela on the 4th of November. At the first camp we were delayed by people going to look for their

runaway slaves. The next morning, when I was ready to start, a message came, 'No march. Kwarumba is coming up with his slaves.' Kwarumba arrived that afternoon with a string of fifty or sixty wretched women carrying heavy loads of plunder, and some of them with babies in their arms; these women represented as many as forty or fifty villages destroyed and ruined, most of the male inhabitants having been killed and the rest driven away into the jungle to find what subsistence they could, or die of starvation. I have no doubt these fifty or sixty slaves represented upwards of five hundred people either killed in defending their homes, or who had died of starvation afterwards, besides a much larger number rendered homeless. All these women were tied together round their waists with thick knotted ropes, and if they lagged on the march were most unmercifully beaten. The Portuguese half-castes and black traders are most brutal in the treatment of their slaves; the Arabs, on the contrary, as a rule treat them kindly. Slaves taken from the centre of Africa like these do not, as a rule, reach the coast; on the contrary, they are taken down to Sekeletu's country—where, owing to several causes, the population is scanty, and slaves are in demand—and are sold for ivory, which is afterwards brought to the coast, a caravan usually making a journey towards the centre and then on to Sekeletu's country, and so on alternately. All this country was very beautiful with hills and woods, and marvellously fertile. Here we were beginning to rise out of the broad valley of the Lualaba, and as we came to a height of about 2600 feet above the sea the oil-palm ceased to flourish. From this place we went on through Ulúnda, which name means wilds or forests. After Ulúnda we came into Lovale, and passed close to the sources of the Lubea and the Zambesi; beyond these we came to enormous plains, which in the rainy seasons are covered with water about knee-deep, and this extends across between the affluents of the Congo and the Zambesi. I passed across

Dr. Livingstone's original route from Sekeletu's to Loanda, and found that the people still remembered him from the fact of his having had a riding ox.

We arrived late at Kagombé's, the chief of all Bihé. This town was the largest I had seen in Africa, being four or five miles in circumference, but a large portion of the interior was taken up by pens for pigs and cattle and tobacco grounds. There were also three gullies, in which were sources of streams flowing to the Kokema. I had to present King Antonio, as he called himself, with a gun, and a leopard-skin which I had had spread out in the hut that was given me to sleep in. When the secretary, who could not write, called to see me, I was told I must give him something, or else there would be trouble. The next morning I went to see King Antonio, and first of all went into a small outer court, the doors of which were guarded by men wearing red waistcoats with white backs, whom he called his soldiers. Some were armed with bows, and others with spears, and a few of them with old flint-lock muskets. They only put down a stool for me to sit on, and brought in a large leather chair studded with brass nails for Kagombé. On this I sent up to my hut to get my own chair to sit on.

After a time King Antonio arrived, dressed in a suit of black clothes and an old wide awake hat, but without any boots, and a Scotch plaid over his shoulders, and held up by a small boy, and looking very drunk indeed. He first informed me that he was a very great man, but that as he had heard I had been so long on the road he did not want a great present; but I must remember him if ever I came there again. He also informed me that he was not the same as any of the other chiefs in Africa, because his name was Antonio Kagombé, and that his likeness had gone to Lisbon; and I must not think he had not finer clothes than those he had on, because he had clothes with gold lace and other fine things. After a while we went into an inner inclosure, and there the stools and

chairs were arranged in a circle, and he went to one of his houses and brought out a bottle of aguardiente, and wanted everybody to have a drink round, but he took good care to have the largest sip for himself; after which there was a little palaver, and I went away to my hut, and the next morning I got away and marched over to a house of Señor Gonsalves. Here I was astonished at finding myself in civilization once more. Remaining there one night, I marched through an open prairie country, with a few bushes and trees, and intersected by many streams, to the settlement of Joa B. Ferreira, who enjoys the position of a district judge, on account of his having travelled a good deal. Kisanji was the first place where we found that milk was to be got, although the first where we saw cattle was in Lovale. From Kisanji to the coast there are no inhabitants, the whole being a desolate tract of mountains, the marching lying through passes and over granite rocks, skeletons lying by the side, showing the severity of the march, signs of the slave-trade still remaining in slave-forks and clogs lying by the roadside.

After leaving the pass, we went across a barren plain till we came close to the coast, and then we came upon what appeared sea-cliffs facing the land, as if a continent had sunk in what is now the Atlantic, and Africa had been upheaved afterwards. At forty-five miles from the coast we sighted the sea, and our feelings were even more thankful than those expressed by Xenophon's Ten Thousand.

The main point of the discoveries I made I believe to be the connection of the Tanganyika with the Congo system. The Lukuga runs out of the Tanganyika, and

there is no place to which it can run but to the Lurwa, which it joins at a short distance below lake Moero. The levels I have taken prove most conclusively that it can have nothing whatever to do with the Nile. The blot upon this fair country is the continuance of the slave-trade, which is carried on to a great extent to supply those countries which have already had their population depleted by the old coast trade.

The chiefs, like Kasongo and Meta Yafa, are utterly and entirely irresponsible, and would give a man leave, for the present of two or three guns, to go and destroy as many villages and catch as many people as he could for slaves. The Warua especially, although holders of slaves, would rather die than be slaves themselves. I have heard instances of their being taken even as far as the island of Zanzibar, and then making their way back, single-handed, to their own country. The Portuguese are the principal agents in this trade, as they are able to dispose of them advantageously for ivory and other products in many countries. The Arabs, as a rule, only buy enough slaves to act as their porters and servants for cultivating the ground round the permanent camp. The people of Bihé, who work under the Portuguese, are most cruel and brutal in their treatment of these unfortunate wretches. I have interfered sometimes, and would have interfered far oftener if I had not found my interference brought a heavier punishment on the unhappy beings when my back was turned. The only thing that will do away with slavery is opening up Africa to legitimate commerce, and this can best be done by utilising the magnificent water-systems of the rivers of the interior."





THE MAMMOTH CAVE OF KENTUCKY.

PERHAPS the most remarkable cavern that has ever been discovered is that called the Mammoth Cave, in Kentucky. This cave has been explored to the distance of between nine and ten miles, but no boundary has been reached. "The mere extent of this excavation is sufficient to render it an object of interest; but the Mammoth Cave is not deficient in attractions in other points, though it is inferior to many other subterranean cavities in the variety of its productions or in the beauty of its natural curiosities.

In the district where the Mammoth Cave is situated there are many other pits and caverns of lesser size, among the limestone formations of which that region is almost wholly composed. A deep pit leads to the mouth of the cave, which is thirty feet in width and from forty to fifty feet high, and which seems like some frightful chasm in nature, whose hideous yawn allures the adventurer to its interior, only to bring him into impenetrable darkness. After advancing two or three hundred yards, however, the lofty arch of rock over the visitor's head gradually contracts on all sides, and for several paces it is necessary for a man to stoop, though oxen are admitted with facility. The passage again expands to a width of fifty feet, and a height of about twenty, which continues for nearly a mile.

As the visitor approaches this part of the cave, an extraordinary spectacle meets his eye, which will remind him of the fabled labours of the blacksmith god, Vulcan, in the centre of Mount Etna; groups of men are here seen engaged with torches and fires in the labours of the cave, which consist in the manufacture of saltpetre, a substance yielded in abundance by the earth of which the floor is composed. The saltpetre is sepa-

rated by steeping the earth in water, which dissolves the salt, and afterwards deposits it by evaporation. This part of the cave is called the First Hoppers, and an exploring party generally supply themselves there with a torch to each man, which is rendered absolutely necessary by the strong current continually rushing from the cold cave to the warm atmosphere without, and frequently blowing out some of the lights. From the First to the Second Hoppers, where saltpetre is also manufactured, the distance is about one mile, and the cave is throughout nearly sixty feet high and forty in width. For almost the whole way between the entrance and the Second Hoppers, the loose limestone has been laid up into handsome walls on both sides, and a good hard road has also been made. Though a few torches cannot show it to perfection, the arches are in general regular, and the walls perpendicular. Before the Second Hoppers are reached, several passages of nearly equal size branch off from the ones generally followed, but the most of these return after a circuit, and intersect or join the main line.

Beyond the Second Hoppers the main passage expands to a height and width never less than sixty feet, which continues with little variation as far as the spot called the Chief City, an immense area, eight acres in extent, and without one pillar to support the arch which is entire over the whole. Nothing can be more sublimely grand than this vault, which mocks the proudest of human erections. The chief city is six miles from the mouth of the cave, and nearly straight from it, though the approach is very circuitous. Five lofty avenues lead from this great area, each from sixty to a hundred feet in width, and from forty to eighty feet high. Fire-beds of uncommon size, with brands of cane lying around them, are interspersed throughout the city. These fire-beds or fire-places are numerous in all

the avenues of this extraordinary cave, though of less size generally than those now seen in the fifth city. They prove, beyond a doubt, that the subterranean world was once inhabited by human beings, but at what period of time it is impossible even to conjecture. One thing is certain, however, that the red men—whom we are accustomed to call the aborigines of North America, but who are really only the successors of a

race that has long passed away—knew nothing, in recent times at least, of these caves. Cane seems to have been the fuel employed in warming these subterranean hearths.

Much light, however, yet remains to be thrown on North American antiquities; and there is no spot, we think, more likely to assist in this, on further examination, than the Mammoth Cave.

THE BEWILDERED PONTIFF.



THE following curious illustration of dexterous sleight-of-hand, and of the bewilderment of the beguiled spectators, appeared some time since in a French memoir of a professor of the art. Torrini was the artist's name, or at least the name by which he was professionally known; and the scene (which is described by Torrini) took place in the Vatican, before the pope, Pius VII., and conclave.

"After having selected from my repertory the best of my tricks, I put my brains on the rack to imagine a something which, belonging to the moment, should present an interest worthy of so illustrious an audience. The evening before that on which my show was to take place, I happened to be in the shop of one of the first watchmakers of the city, when a servant came in to inquire whether the watch of his excellency the cardinal was mended. 'It will not be done before evening,' said the watchmaker; 'and I shall have the honour of bringing it to your master myself.' 'Tis a handsome and excellent watch,' said the tradesman to me; 'the cardinal values it at more than ten thousand francs, because, having ordered it himself from the illustrious Bréguet, he fancies it unique of its kind. Yet, what an odd thing! two

days ago a mad young fellow of this town of ours came to offer me, for a thousand francs, a watch by the same maker, exactly like the cardinal's.' 'Do you think,' said I, 'that this person has really any intention of parting with his watch?' 'Sure,' was the answer. 'This young spendthrift, who has already made away with his patrimony, has now come down to selling his family trinkets. He would be very glad of the thousand francs.' 'Where is he to be found?' 'Nothing easier; he never leaves the gaming-house.' 'Well, sir, I wish to make his watch mine; but I must have it at once. Buy it for me; then engrave the cardinal's arms on mine, so that the two may not be distinguished one from the other. On your loyalty depends the benefit you will draw from this transaction.'"

The watch was bought by the watchmaker, who knew his customer, and on comparison bore out the description—was duly engraved by the confederate—duly sent home—and duly deposited in Torrini's pocket, ready for the trick of tricks which was to close the evening. The pope neither believed in, nor had been dissuaded by, any tales of sorcery from countenancing the entertainment—feeling that, so far as sleight-of-hand went, he was a wondering layman, and the clever fellow brought in to amuse him, the priest of many mysteries. The exhibition accordingly went off capitally. "To end it," said Torrini, "and by

way of *bouquet*, I went on to the famous trick which I had contrived for the occasion. Here, however, I had to encounter many difficulties. The greatest of these, without question, was to lure the cardinal to give me his watch, and that without directly asking for it. To gain my point, I had recourse to stratagem. On my asking for a watch, many had been handed to me; but I had given them back, on the pretext, more or less true, that, offering as they did no peculiarity in shape, it would be difficult afterwards to identify the one chosen by me. 'If, Messieurs, any one among you,' said I, 'has rather a large watch (the cardinal's had precisely this peculiarity), and would entrust it to me, I should accept it willingly as the one fittest for our experiment.'

The cardinal fell into the snare, and the conjuror examined and admired and asked questions about the cardinal's handsome watch, by way of *boniment*—the word in the French conjuror's dictionary for the preliminary talk which is to beguile time, and put an audience off its guard. But, to return to the cardinal's watch. After praising its capital qualities up to the skies—

"See," said Torrini, "a first proof of them." And with this he lifted up the watch as high as his face, and let it fall on the *parquet*. There was a cry of fright on every side. The cardinal, pale and trembling, got up. "Sir!" said he, with ill-restrained anger, "what you have done is an extremely bad joke!"

But worse was to come for the poor cardinal, who set such store on his Bréguet, Torrini stamped on the case, crushed it in pieces, and took up only a shapeless mass. The cardinal was in a rage; his watch (a chronometer, too!) was the only watch of the sort ever made; and Torrini handed about the heap of broken metal, that all might be sure that the broken heap *was* the cardinal's watch of watches.

"The identity of the cardinal's watch proved, the next feat was to get the real one into the pope's pocket. But there was no thinking of such a thing so long as his

Holiness remained seated. Some expedient for getting him out of his chair must needs be found. I had the good luck to find one. They brought me in a huge mortar and pestle, put it on the table, into which I flung the wrecks of the chronometer, and began to pound them with all possible fury. Suddenly, a slight explosion was heard, and from the bottom of the vessel came up a reddish flame, which gave the scene an appearance of real magic. All this time, leaning over the mortar, I pretended to look in, and exclaimed to myself at the wonderful things I saw there. Out of respect to the pope, no one rose; but the pontiff, giving way to curiosity, at last approached the table, followed by some of the audience. 'I do not know to what I am to attribute the bewilderment I feel,' said his Holiness, 'but I can see nothing.' It was the same with myself; but so far from owning it, I beg the pope to come round the table, to the side the most favourable for seeing that which I announce. During this evolution I slip into the pocket of the holy father the cardinal's watch. The experiment went on, the watch in the mortar was broken, melted, and reduced to the form of a little ingot, which I handed round to the company. 'Now,' said I, 'secure of the result I was about to obtain, I am going to restore this ingot to its primitive form, and this transformation shall take place during the passage it is about to make hence to the pocket of the person in this company the least to be suspected of confederacy.' 'Ah! ah!' cried the pope, in a jovial humour, 'this gets stronger and stronger. But what *would* you do, Mr. Sorcerer, if I were to demand that it should be in *my* pocket?' 'His Holiness has only to order, to have his wish obeyed.'

The ingot was again displayed—of course instantaneously hidden (as conjurors can hide any small matter). Torrini cried, "Pass!" and lo! the cardinal's chronometer in the pope's pocket—safe and sound.

The next day the sorcerer received a magnificent diamond snuff-box.

AMONGST THE BASHKIRS.



IN the course of my tour amongst the Trans-Uralian mountains, I came one summer evening to an uninhabited Bashkir winter village, the inhabitants of which were, so to speak, "upon the tramp." The majority of the habitations consisted of one square block, narrowly resembling the peculiar compound called "wattle-and-daub" in some of our northern counties. The huts were neither thatched nor roofed; just simply covered in with clay and turf across some rafters.

Numbers of these sheds, surrounded by fenced-in spaces for cattle, were dotted about without attempt at arrangement, further than accident or the good pleasure of the builder had seen fit to appoint. The effect might be picturesque, but was certainly confusing. Dung heaps were scattered in all directions as promiscuously as the dwellings, intermingled with luxuriant weeds, and waving hemp, which nobody sowed and nobody would reap. Herds of half-famished dogs prowled among the tall grass and assaulted strangers' calves.

A visit to one of these places is equivalent to inspecting all; for they are invariably constructed after the same pattern. Along the wall and opposite the door runs a broad, low wooden settle or divan, where in the entire family sit and sleep. The room is lighted by one little window, in which a bladder is substituted for a pane of glass. A large clay stove occupies one corner, beneath a hole in the roof permitting the escape of smoke. This is a summer arrangement, by the way. In winter or rainy weather the hole is stopped up by a wisp of straw, and the smoke gets out the best way it can. A few earthen pipkins and pots complete the furniture of the ordinary Bashkir household.

From a stray hunter our guide learned the direction in which the inhabitants of this village were to be found, and after a ride of six or eight versts we came in sight of the temporary dwellings they had set up. A nomad village is usually composed of several tribes, who, according to ancient custom, have pasture rights in common. Each family inhabits a separate yurt, the wealthier Bashkirs allotting a second habitation to their women. During the great heats of summer the felt is usually turned up a couple of inches from the ground, to admit the cooling breeze.

Upon arriving we were kindly received by the chief elder, and conducted to a yurt of the better class. This residence, though only temporary, was vastly superior to the shed we inspected in the winter village. Opposite the entrance was a similar broad divan, but covered with carpets and pillows. Chests, containing the family wardrobe, stood around the tent. Upon the walls hung spears, swords, fire-arms, and harness, occasionally also bows and arrows.

Here we were presented, as welcome, with a wooden bowl of *koumiss*, which it would be a serious breach of manners to refuse. In every yurt a large skin of this beverage stands beside the door. It is in a perpetual state of fermentation throughout the summer. Although in frequent requisition, fresh milk is constantly poured in by the women, who stir the mass up thoroughly with a kind of churn. There is no cover to the skin: flies, ants, and other equally unpalatable additions commit insecticide without the slightest opposition; but these are trifles quite unworthy Bashkir consideration. Cleanliness, in fact, of any description is entirely unknown; so that the only resource of the unfortunate traveller, presented with the welcoming bowl of *koumiss*, is to shut his eyes and hold his nose, quaffing the draught with all possible

expedition. One consolation remains to the afflicted mind : *koumiss* is said to be an excellent remedy for consumption and all respiratory diseases. Prepared with ordinary attention to nicety, it affords a thin, sweetish liquid, giving off very little cream, and highly nourishing.

The Bashkirs of these districts live principally by cattle-breeding : their chief possessions are horses and sheep—few horned beasts. Some few among the wealthiest own upwards of 500 horses, sent summer and winter into the steppes ; for, as the pastures are of immense extent, and little or no hay is made, sufficient half-dried grass is always to be found, even when the snow lies several feet upon the ground. It is a curious sight to see thousands of horses roaming over the steppe, scratching away the snow with their fore-feet. In violent drifting storms these sagacious creatures are found grouped in large circles, their foals in the midst, and the heads of all turned towards the wind, to prevent the snow from lodging upon their crests and manes. In other hands, and well looked after, the animals prove valuable from their hardy training. Numbers are annually brought to the Kazan fairs, whence they are sent into the interior of the empire : the mares are generally retained for breeding, or for the sake of their milk, which is bartered to the Kirghises.

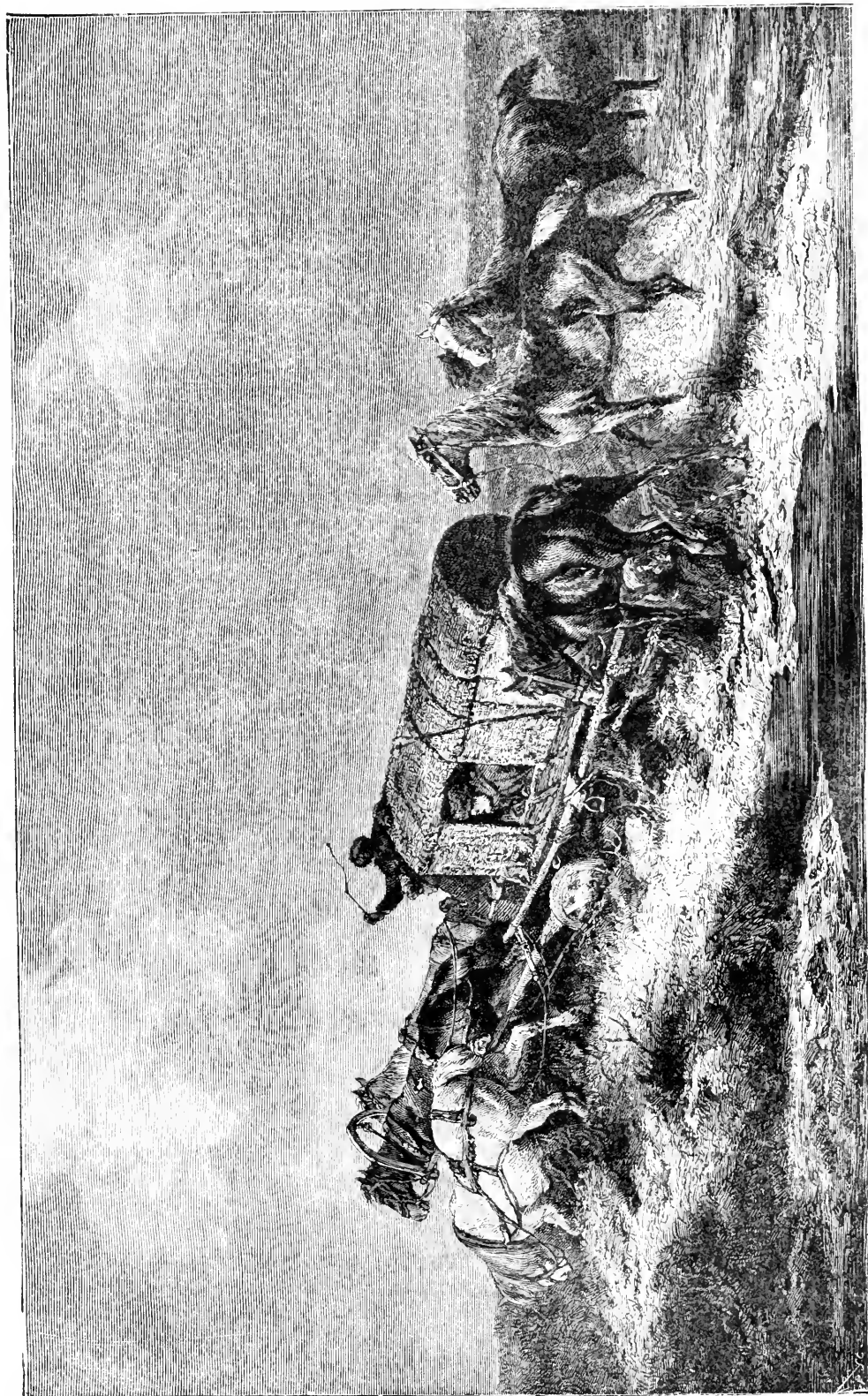
Among such masses of cattle, life in a nomad village is naturally noisy. Lowing, bleating, and neighing resounds on all sides. Animals meet the eye in every direction. The grass is trampled flat for miles. Men gallop to and fro, lassoing mares with the *arkan* ; the women are occupied with milking and household labours ; half-naked Bashkir boys roll upon the grass, or shoot blunt-headed arrows from their little bows ; hundreds of tethered foals stamp with impatience, and neigh after their mothers, then being milked. Farther out in the steppe pasture are the larger flocks, out of whose midst rises at intervals the bulk of an unwieldy camel ; and farthest away of all, the sombre range of the Ural, with its

steep precipices, wild passes, and primeval woods, fills in the background.

When the Bashkir is not occupied with flocks and herds, he lies lazily in the yourt, sips *koumiss*, and enjoys the delights of idleness. If actively inclined, he throws himself upon the first horse he can catch—for he is no pedestrian—and pays a visit to the nearest village. A sheep is slaughtered in honour of the guest, and *koumiss* is handed round in mighty bowls, so long as the remotest possibility of drinking it remains. No pen can convey a notion of the fabulous elasticity of the Bashkir stomach.

When all the pasture in the vicinity has been fed down, the felt tents are struck and laden upon camels. This office falls to the share of the women, upon whom, indeed, especially when getting old and wizen, most of the laborious tasks devolve. The entire horde then sets forth to gain "fresh fields and pastures new." The cattle lead the way, browsing as they advance, and guarded by a cloud of mounted skirmishers, ready to do battle in their defence. Then follow women, children, and the baggage ; lastly, the officials and elders of the village ; the whole, not excepting the children, on horseback. A flitting of this description being esteemed a kind of festival, the fairer portion of the dusky tribe are decked in all their bravery, the richest wearing the peculiar Bashkir head-dress. This consists of a sort of smooth cap with head lappets, the whole affair covered with perforated silver coins. The numismatist might often make discoveries of value among these ornaments, which are especially rich in ancient kopeck pieces. The elder women ride unveiled ; the younger invariably envelop their faces when a stranger appears, or modestly conceal their features as far as the eyes behind their wide-hanging sleeves.

Like the Kirghis, the Bashkir waits with impatience for the spring, when he can quit his narrow winter habitation, which is far less home to him than the green undulating steppe and the dark mountain passes of the Ural.



WASHKERS SHIFTING THEIR QUARTERS.



LOGGING ON PUGET SOUND.

THE lumber or timber trade of the Puget Sound region in the north-west of America, has become a business of national importance. As the great forests of the Atlantic slope and the Mississippi valley have fallen before the woodman's axe, until every wayfaring man can "see the nakedness of the land," a small item of comfort may be found in the fact that there are yet remaining in the Puget Sound country some twenty million acres of the most magnificent lumber in the world. This does not include the sylvan treasures of the great State of Oregon lying south of Washington Territory, and the extensive timber ranges of Alaska, away up under the shadows of the North Pole.

Lumber is *the* great article of Puget Sound industry and trade. A description of the *modus operandi* of taking those sylvan giants, which stand in solid battalions all over so many of the valleys, uplands, and hillsides, from their native stumps, and placing them in the markets of the world, will doubtless be of interest to those who are unacquainted therewith.

To make a rabbit-stew, we must first get the rabbit; so to start a logging-camp, you must first get the timber-range,—that is, the land on which the timber grows. This is secured as near the tide-water of the Sound as possible, or else near the bank of some large creek or river, so as to save the expense of building long roads and hauling the logs over them to the nearest water in which they can be floated. It is quite an object in the way of saving expense to secure a "timber claim" near navigable water—navigable at least for the logs if not for the steam tug-boats by which they are

towed to the saw mills, which are sometimes nearly a hundred miles distant. This proximity to the water has another advantage in the fact that the roads from the timber-ground can generally be made level or sloping down hill. Sometimes, however, this object is not secured by such proximity. In such cases the road must be levelled by cuts or tunnels. One company dug a tunnel through a hill near Olympia about half a mile in length, and at great expense; but the pecuniary outlay was fully justified by the greater loads which could be transported through the tunnel than over the hill.

A "logging camp," when fully equipped, consists of a boss, or foreman, eleven men, and five yoke of oxen. A rude hut is built at or near the hall-way, called "the hovel," where the men sleep at night and smoke or read during stormy days and Sundays, when the camp is too far away from one of our little towns or villages to make a visit thither. Beside or near the hovel is the cook-house. Here reigns supreme one of the "fundamental officers" of a well-regulated camp. A good cook can do much towards keeping "all hands" of the rough and ready loggers in something of a Christian frame of mind at least three times every day.

The second officer in importance (the boss is not regarded in this enumeration of officials) is the chopper. His duty is to cut down the trees and measure them into logs of the proper length for the sawyer, who cuts with a long cross-cut saw, operated by one man, according as the chopper marks out his work. The standard lengths for logs are 24, 32, 90, and 110 feet. The lengths into which the tree is cut are decided very much by its size and shape. For instance, a tree eight feet in diameter at the butt will most likely be cut into one of the 110 feet lengths on account of the difficulty in handling it. If a tree is a little crooked or tapers a little quicker than is

common, it will, of course, for obvious reasons, be cut into the shortest standard lengths.

The chopper usually cuts the tree about eight or ten, perhaps twelve, feet above the ground. To do this he makes a notch several inches deep into the body of the tree at a convenient height. Into this he drives and fixes securely a plank, upon which he stands, while, with a few hours' labour, he levels the sylvan monarch which has braved the storms of and cast its shadows over the earth for hundreds of years. All hands are warned by a shout to beware of and stand from under the falling giant, which comes down with a crash like thunder, often producing a respectable little earthquake felt sometimes several miles away.

The chopper is responsible for the position in which the tree falls, unless his calculations are disarranged by some extraordinary cause, over which he has no control. For ordinary lumbering purposes no tree less than eighteen inches in diameter at the butt is ever felled. There are various reasons why the trees are usually cut so far from the ground. Among others are the twisted and hard nature of the wood of which the butt is composed, its liability to be cracked, to have the cracks full of pitch or balsam, and to be decayed or imperfect at heart—for man is not the only creature which a bad heart condemns.

Some of these sylvan giants are of almost incredible dimensions, twenty-four to thirty feet in circumference, eight to ten feet in diameter, at the base, running up straight as arrows perhaps 350 feet, more than 200 feet of which is without a knot or limb, and at that height from three to five feet in diameter. Of course, these are extraordinary trees; some of them contain 25,000 feet of lumber. But if any "doubting Thomas" will come out to Puget Sound with the desire to satisfy himself upon this point, we can furnish the standing arguments needful to convince his mind that the extraordinary facts are true. I can even tell him of one fir-tree sixteen feet in dia-

meter measured with the surveyor's chain. But lest some honest reader might be misled by the above extraordinary figures, I will say that the trees of a good timber claim will average from 180 to 300 feet in height and from three to six feet in diameter, with from one to two hundred feet of clear, straight trunk, consisting of the very best spar and ship timber produced by the forests of the world.

The chopper needs to exercise great care to fell those trees in the direction in which they shall be least liable to injury. The most level space must be selected, and all danger of lodging against other trees avoided. But, in spite of the utmost caution, it sometimes happens that a valuable trunk is completely shattered by the shock of its fall, and rendered entirely useless for lumbering purposes.

After the chopper has marked off the trunk into proper lengths, the sawyer takes charge, and proceeds to manipulate his long, cross-cut saw. The swamper next comes along and clears away the brush, so that the team can get in to the logs to haul them out to the skidded road. The "barkers" (of which there are two to each camp) take the logs in hand, and strip off the bark with an instrument like a chisel-pointed crowbar. This is easily done in the summer season, because the sap is then running. In the other seasons it is not an easy task; and so they only chop the bark off the "riding side," that is, the side upon which the log will be laid when drawn over the skidded road. This bark is often six and occasionally nine inches in thickness; and forms most excellent fuel, burning with a clear bright blaze, and lasting longer than oak or maple. The "hook-tender" follows the barkers, and snips off the corners of the logs so that round instead of square ends present themselves to any obstructions, as the logs are drawn to their destination. He also rigs a "fall" (block and tackle) when needed, and drives into the log the "dog," or hook, with a short chain attached, by which it is to be drawn to its destination.

The great man among the "officers" of the camp is the teamster. He generally has an ox team of five yoke, and has a vocabulary of profanity compared with which the common article is almost religious. There are exceptions to every rule, but it seems to be part of the necessary professional attainments of a first-class teamster, that he be profane, not in the common way—the oxen wouldn't mind chat—but after a manner peculiarly and originally his own. Yet this same individual, who, when driving his team, imagines himself called upon to make the very atmosphere blue with profanity, may, around the cook-house table, or in presence of ladies or "a preacher," be the mildest-tongued man of all the camp. But among the many wonders included in the ups and downs of life, is the fact that this great swearing man is under the orders of the "hook-tender" while in the woods. If a log needs to be rolled into the road, or out of a new road, he has to take one or more yoke of his oxen and perform the task.

Two "skidders" are kept busy all the time in repairing the old or making new roads, leading from all points into the main track. Some of these side-roads are "skidded," and the main road leading to the "roll-way" always is. Those "skids" are small logs, from six to fourteen inches in diameter, laid across the road, bedded about half their thickness into the ground, and from five to ten feet apart. The bark is peeled off their upper sides, and they are kept clean with a broom, and regularly greased by the "skid greaser," who follows the team with a mop and a can of oily grease, which he "slaps" upon each skid in front of the row of logs, which have been "dogged" end to end, and are drawn by the full team, to the roll-way over this main road. The oxen are there unhitched. The dogs and connecting chains, by which the strings of logs were held together while being drawn, are thrown over yokes, and the

oxen wend their way back for another load at a pace so slow that it would almost disgrace a snail of lively disposition and ordinary locomotive powers.

From three to four thousand feet of lumber is a fair load for five yoke of oxen. Occasionally, instead of rolling the logs, a "shoot" has to be built, by which they are shot, one at a time, endwise, into the water. There are several of these shoots about Puget Sound, which are said to be at least half a mile in length. This mode of carriage is adopted when the peculiar formation of the shore requires it. There is, no doubt, considerable monotony about it to the men who have the hard work to perform of putting it in operation; but to him who is only an onlooker, there is something terrifically interesting in the awful rush and roar and plunge of those huge logs of timber; and I have often stood at a safe distance and watched them with something akin to terror, as imagination conjured up the possibility of some poor logger's becoming in any way involved in the furious rush of the fierce and for a few moments, ungovernable monster.

When once the logs are in the water they are easily handled. If not in navigable water, they are conveyed thither singly or in booms, and there arranged into an oblong square, surrounded by boom stringers, and towed by a tugboat to one of the sawmills, of which there are at least a dozen on Puget Sound. They are then sawed into lumber of varied dimensions, and shipped to the great outside world.

Some idea of the extent of the lumber trade of Puget Sound can be derived from the fact that one of those mills cuts, when running on full time, 400,000 feet per day. The owners of the mill also own twenty-five vessels, and ship their lumber to all parts of the world. A town of about 1,000 souls has grown up around the mill, with store, residences, etc., all owned by the company.



ARAGO AND THE BANDITTI.

THIS celebrated French astronomer, as is well known, was in the early part of his life appointed, with two other scientific men, to complete the measurement of the arc of the meridian. This undertaking necessitated his residence for some time in the loftiest summits of the Pyrenees, and involved him in many romantic adventures and hairbreadth escapes. The following anecdote, taken from his autobiography, will show what a perilous life was led by the delegates of the Bureau of Longitude :—

“During my stay on a mountain near Cullera, to the north of the mouth of the river Xucar, and to the south of the Albufera, I once conceived the project of establishing a station on the high mountains which are in front of it. I went to see them. The alcaid of one of the neighbouring villages warned me of the danger to which I was about to expose myself. ‘These mountains,’ said he to me, ‘form the resort of a crowd of robbers.’ I asked for the national guard, as I had the power to do so. My escort was supposed by the robbers to be an expedition directed against them, and they spread themselves at once over the rich plain which is watered by the Xucar. On my return I found them engaged in combat with the authorities of Cullera. Wounds had been given on both sides; and, if I recollect right, one alguazil was left dead on the plain.

The next morning I regained my station. The following night was a horrible one; the rain fell in a deluge. Towards night, there was knocking at my cabin door. To the question, ‘Who is there?’ the answer was, ‘A custom-house guard, who asks of you a refuge for some hours.’ My

servant having opened the door to him, I saw a magnificent man enter, armed to the teeth. He laid himself down on the earth, and went to sleep. In the morning, as I was chatting with him at the door of my cabin, his eyes became animated on seeing two persons on the slope of the mountain, the alcaid of Cullera and his principal alguazil, who were coming to pay me a visit. ‘Sir,’ cried he, ‘nothing less than the gratitude which I owe to you, on account of the service which you have rendered to me this night, could prevent my seizing this occasion for disencumbering myself, by one shot of this carbine, of my most cruel enemy. Adieu, sir!’ And he departed, springing from rock to rock as light as a gazelle.

When arrived at the cabin, the alcaid and his alguazil recognised in the fugitive the chief of all the brigands in the country.

Some days afterwards, the weather having again become very bad, I received a second visit from the pretended custom-house guard, who went soundly to sleep in my cabin. I saw that my servant, an old military man, who had heard the recital of the deeds and behaviour of this man, was preparing to kill him. I jumped down from my camp bed, and seizing my servant by the throat,—‘Are you mad?’ said I to him; ‘are we to discharge the duties of police in this country? Do you not see, moreover, that this would expose us to the resentment of all those who obey the orders of this redoubted chief? And we should thus render it impossible for us to terminate our operations.’

Next morning, when the sun rose, I had a conversation with my guest, which I will try to reproduce faithfully.

‘Your situation is perfectly known to me; I know that you are not a custom-house guard; I have learnt from certain

information that you are the chief of the robbers of the country. Tell me whether I have anything to fear from your confederates?’

‘The idea of robbing you did occur to us; but we concluded that all your funds would be in the neighbouring towns; that you would carry no money to the summit of mountains, where you would not know what to do with it, and that our expedition against you could have no fruitful result. Moreover, we cannot pretend to be as strong as the King of Spain. The king’s troops leave us quietly enough to exercise our industry; but on the day that we molested an envoy from the Emperor of the French, they would have directed against us several regiments, and we should soon have succumbed. Allow me to add, that the gratitude which I owe to you is your surest guarantee.’

‘Very well, I will trust in your words; I shall regulate my conduct by your answer. Tell me if I can travel at night? It is

fatiguing to me to move from one station to another in the day under the burning influence of the sun.’

‘You can do it, sir; I have already given my orders to this purpose; they will not be infringed.’

Some days afterwards I left for Denia; it was midnight, when some horsemen rode up to me, and addressed these words to me:—

‘Stop there, señor; times are hard: those who have something must aid those who have nothing. Give us the keys of your trunks; we will only take your superfluities.’

I had already obeyed their orders, when it came into my head to call out—

‘I had been told, however, that I could travel without risk.’

‘What is your name, sir?’

‘Don Francisco Arago.’

This satisfied them, and our cavaliers, spurring away from us, were rapidly lost to sight.”

MONKEY STORIES.



ANY interesting and amusing stories are recorded of the monkey tribe. The following exhibit some of their more intelligent traits of character:—

Some time ago a ship sailed for England from a port in the West Indies, the captain of which had taken four monkeys on board, and also a quantity of very fine grapes. The monkeys were allowed to wander at will around the ship; and soon after the vessel had put to sea the grapes, which the captain had hung up in his cabin, began to disappear from it in the most unaccountable manner. The monkeys were suspected, and they were watched for some time, but nothing was discovered. The bunches of grapes continuing to disappear

despite these precautions, the captain himself determined to watch, and “that he might mete out due punishment to the offenders when caught, he provided himself with a rope’s end,” and, lying down in his cabin, pretended to sleep. This was in the morning, about the time that the monkeys were let out of their cage, where they were confined for the night. The captain had just time to settle, when down came the whole troop of monkeys from the deck, halting, however, at the cabin door, as if surprised to find the cabin occupied. There they remained for some time in deep consultation, concocting their little plan of action. At length one of them mounted the table, and cautiously approaching the apparently sleeping captain, stood steadfastly regarding him for some time. He next slowly raised the captain’s eyelid to see if he really were asleep. The others

eagerly watching the result of the experiment. The whole thing so amused the captain, that he laughed loudly, whereon the whole tribe of sly pilfering rascals scampered back to the deck, filled with a wholesome dread of those consequences which would most assuredly have followed their next invasion of the cabin in search of grapes.

In one of his excursions, M. du Chaillu killed a female Nshiego carrying her young one in her arms, which he took to his residence. In a few days it was so completely tamed that he could allow it to wander at liberty, without fear of its running away. He could not move without being followed by the youngster, neither could he sit down without having the animal climbing on his knees or hiding its head in its bosom. The poor little thing found extreme pleasure in being caressed and nursed.

"If I opened my eyes," adds M. du Chaillu, "while it was in the act of committing a theft, it all at once assumed an honest air, and came to caress me; but I could readily detect it darting furtive glances towards the bananas.

On the approach of the dry season, the temperature being chilly, Tommy began to be desirous of company during his slumbers, in order to keep himself warm. The negroes did not like him for a bed-fellow, although he resembled them so much; neither did I care to give him a place near me, so that poor Tommy, repelled everywhere, found himself badly situated. But I soon discovered that he watched until everybody was asleep to creep furtively beside some negro friend, and there would sleep without stirring until daybreak, when he usually decamped before being found out. Several times he was caught in the act and beaten; but he persevered."

Buffon has given some very interesting details regarding a young Chimpanzee which was brought to Paris in 1740. He tells us that this animal offered its hand to lead people about who came to visit it; that it promenaded with them in the gravest manner, as if keeping them company; that

it sat at table; spread out its napkin; wiped its lips with it; and used its spoon and fork to carry food to its mouth; that it poured out its drink into a glass by itself; hobnobbed when invited to do so; that it would take a cup, and pour tea into it, leave it to cool before drinking it; and all this without any other instigation than the signs or words of its master, and often even without this.

Dr. Franklin mentions having seen, in the Zoological Gardens of Antwerp, a Chimpanzee which sometimes dined at the table of the director, where, on fête days, it drank to the health of the company in a glass of champagne. This monkey showed a great regard for the children of the house, and joined in their games. In summer it accompanied them into the garden, climbed up into a cherry-tree, and gathered fruit for them.

"I was fortunate in seeing the monkeys of Gibraltar," says Mr. Kenyon, "very soon after I arrived, for, except when the wind blows from the east, they do not often show themselves on the same side the rock as the town is situated, and are therefore not seen for long intervals. But I happened to be driving with my friends, when suddenly a little girl, who was sitting in the carriage, exclaimed with great glee, 'There are the monkeys!' and on looking, I observed, a good distance off, on the heights above us, some objects which at first I thought were dogs, but I soon perceived, from the agility with which they sprung from rock to rock, that they were indeed the animals I so much wished to see.

Gibraltar is, I believe, the only place in Europe where these monkeys are to be found, nor are they very numerous there, but they are preserved with great care, nobody being allowed to kill or catch them. They are of the species called the Barbary Ape (*Simia Inuus*), and are about three or four feet in length, of a greenish-brown colour. The face is not very unlike that of a dog, but they are extremely ugly, and have huge pouches in their cheeks, where they place their food until they want to eat it. They go about in one large troop, and seem to be

under the direction of a venerable old chief with a long white beard, who in Gibraltar is known by the name of the 'Town Major.' Usually they inhabit the highest part of the rock, and feed, I think I was told, on the palmetto plant; but sometimes, when the oranges are ripe, they come down to rob the gardens, and then they are often fierce and mischievous.

Two ladies told me that, shortly after they came to Gibraltar, they returned home one day highly indignant at the bad manners of the little boys of the town, who, they said, had been throwing stones at them from behind the trees in the Alameda. Some one suggested they must be mistaken; but no, they were quite positive of it; for they had distinctly heard the naughty little urchins laughing and whispering, although they could not see them. The next day the same thing happened, and they determined, if possible, to discover the delinquents. They ran in among the trees, and then, to their astonishment, saw several of the monkeys sitting on the branches, jabbering away and making the most hideous grimaces; so the ladies thought it best to retire at once, which they did, followed by a fresh shower of stones.

The female monkeys carry their young ones in their arms as women do their children; and Mrs. H. told me she once saw one of them performing the morning toilet of her offspring, which she described as being painfully like a similar operation among human beings; for the mother, while she smoothed down the hair of her bantling, kissed and caressed it as long as it was good, but when the thing became restless, boxed its ears soundly. It is a curious fact that the lifeless bodies or skeletons of the monkeys are never found, and it is not known what they do with their dead; some saying they throw them into the sea, and others that they carry them across to Barbary, through the subterranean passage that is supposed to exist under the straits."

No one who has ever seen the monkey department of the Zoological Gardens can possibly forget the extraordinary actions

and antics—now grotesque, now ridiculous; now disgusting, and anon most touchingly affecting—of these versatile creatures, which in a few minutes he was permitted to witness. But, if thus amusing and instructive while "cribbed, cabined, and confined" within the narrow limits of a cage, how much more so may we not expect them to be when in the enjoyment of that wild liberty in which they so exuberantly delight. Mr. Parkyns, who has spent many years in the northern provinces of Egypt, describes their mischievous activity.

On entering a certain well-wooded ravine, while pursuing his peregrinations, he found the trees filled with the "tota" or "waag," a beautiful little greenish-grey monkey, with black face and white whiskers. "I followed a troop of these," he says, "for a long time, while the porters and servants were resting—not at all with the intention of hurting them, but merely for the pleasure of watching their movements. If you go tolerably carefully towards them they will allow you to approach very near, and you will be much amused with their goings-on, which differ but little from those of the large no-tailed monkeys, 'Beni Adam.' You may see them quarrelling, making love, mothers taking care of their children, combing their hair, nursing and suckling them; and the passions—jealousy, anger, love—as fully and distinctly marked as in men. They have a language as distinct to them as ours is; and their *women* are as noisy and fond of disputation as any fish-fag in Billingsgate.

The monkeys, especially the cynocephali, who are astonishingly clever fellows, have their chiefs, whom they obey implicitly, and a regular system of tactics in war, pillaging expeditions, robbing corn-fields, etc. These monkey-forays are managed with the utmost regularity and precaution. A tribe, coming down to feed from their village on the mountain (usually a cleft in the face of some cliff), brings with it all its members, male and female, old and young. Some, the elders of the tribe, distinguishable by the quantity of mane which covers their shoulders, like a lion's, take the lead, peer-

ing cautiously over each precipice before they descend, and climbing to the top of every rock or stone which may afford them a better view of the road before them. Others have their posts as scouts on the flanks or rear; and all fulfil their duties with the utmost vigilance, calling out at times, apparently to keep order among the motley pack which forms the main body, or to give notice of the approach of any real or imagined danger. Their tones of voice on these occasions are so distinctly varied, that a person much accustomed to watch their movements will at length fancy—and perhaps with some truth—that he can understand their signals.

The main body is composed of females, inexperienced males, and young people of the tribe. Those of the females who have small children carry them on their back. Unlike the dignified march of the leaders, the rabble go along in a most disorderly manner, trotting on and chattering, without taking the least heed of anything, apparently confiding in the vigilance of their scouts. Here a few of the youth linger behind to pick the berries off some trees, but not long, for the rear-guard coming up forces them to regain their places. There a matron pauses for a moment to suckle her offspring, and, not to lose time, dresses its hair while it is taking its meal. Another younger lady, probably excited by jealousy or by some sneering look or word, pulls an ugly mouth at her neighbour, and then, uttering a shrill squeal highly expressive of rage, vindictively snatches at her rival's leg or tail with her hand, and gives her perhaps a bite in the hind-quarters. This provokes a retort, and a most unladylike quarrel ensues, till a loud bark of command from one of the chiefs calls them to order. A single cry of alarm makes them all halt and remain on the *qui vive*, till another bark in a different tone reassures them, and they then proceed on their march.

Arrived at the corn-fields, the scouts take their position on the eminences all round, while the remainder of the tribe collect provision with the utmost expedition,

filling their cheek-pouches as full as they can hold, and then tucking the heads of corn under their armpits. Now, unless there be a partition of the collected spoil, how do the scouts feed?—for I have watched them several times, and never observed them to quit for a moment their post of duty till it was time for the tribe to return, or till some indication of danger induced them to take to flight. They show also the same sagacity in searching for water, discovering at once the places where it is most readily found in the sand, and then digging for it with their hands just as men would, relieving one another in the work if the quantity of sand to be removed be considerable.

Their dwellings are usually chosen in clefts of rocks, so as to protect them from the rain, and always so high that they are inaccessible to most other animals. The leopard is their worst enemy, for, being nearly as good a climber as they, he sometimes attacks them, and then there is a tremendous uproar. I remember one night, when outlying on the frontier, being disturbed in my sleep by the most awful noises I ever heard,—at least they appeared as such, exaggerated by my dreams. I started up, thinking it was an attack of the negroes, but I soon recognised the voices of my baboon friends from the mountain above. On my return home I related the fact to the natives, who told me that a leopard was probably the cause of all this panic. I am not aware how he succeeds among them. The people say that he sometimes manages to steal a young one, and make off, but that he seldom ventures to attack a full-grown ape. He would doubtless find such a one an awkward customer; for the ape's great strength and activity, and the powerful canine teeth with which he is furnished, would render him a formidable enemy, were he, from desperation, forced to stand and defend his life. It is most fortunate that their courage is only sufficiently great to induce them to act on the defensive. This indeed they only do against a man when driven to it

by fear; otherwise they generally prefer prudence to valour. Had their combativeness been proportioned to their physical powers, coming as they do in bodies of two or three hundred, it would have been impossible for the natives to go out of the village except in parties, and armed; and instead of little boys, regiments of armed men would be required to guard the cornfields.

I have, however, frequently seen them turn on dogs, and have heard of their attacking women whom they may have accidentally met alone in the roads or woods. On one occasion I was told of a woman who was so grievously maltreated by them, that, although she was succoured by the opportune arrival of some passers-by, she died a few days after from the fright and ill-treatment she had endured.

To show that their cleverness depends in some measure upon powers of reflection, and not entirely on that instinct with which all animals are endowed, and which serves them only to procure the necessaries of life and to defend themselves against their enemies, I will relate an anecdote to which I can testify as an eye-witness. At 'Khartūm, the capital of the provinces of Upper Nubia, I saw a man showing a large male and two females of this breed, who performed several clever tricks at his command. I entered into conversation with him as to their sagacity, the mode of teaching them, and various other topics relating to them. Speaking of his male monkey, he said that he was the most dexterous thief imaginable, and that every time he was exhibited he stole dates and other provisions sufficient for his food for the day. In proof of this he begged me to watch him for a few minutes. I did so, and presently the keeper led him to a spot near a date-seller who was sitting on the ground with his basket beside him. Here his master put him through his evolutions; and, although I could perceive that the monkey had an eye to the fruit, yet so completely did he disguise his intentions that no careless observer would have noticed it. He did not at first appear to care about approaching the

basket; but gradually brought himself nearer and nearer, till at last he got quite close to its owner. In the middle of one of his feats he suddenly started up from the ground on which he was lying stretched like a corpse, and uttering a cry as of pain, or rage, fixed his eyes full at the face of the date-seller, and then, without moving the rest of his body, stole as many dates as he could hold in one of his hind hands. The date-man, being stared out of countenance, and his attention diverted by this extraordinary movement, knew nothing about the theft till a bystander told him of it, and then he joined heartily in the laugh that was raised against him. The monkey, having very adroitly popped the fruit into his cheek-pouches, had moved off a few yards, when a boy in the crowd round him pulled him sharply by the tail. Conscience-stricken, he fancied that it had been done in revenge by the date-seller whom he had robbed; and, so passing close by the true offender and between the legs of one or two others in the circle, he fell on the unfortunate fruiterer, and would no doubt have bitten him severely but for the interference of his master, who came to the rescue.

I have never thought it worth while to teach monkeys of my own any tricks, always preferring to watch their natural actions. I had in Abyssinia a young one of the same breed as the last mentioned. From the first day she was given to me her attachment was remarkable, and nothing would induce her to leave me at any time; in fact, her affection was sometimes ludicrously annoying. As she grew up she became more sedate, and was less afraid of being left alone. She would sit and watch whatever I did with an expression of great intelligence; and the moment I turned my back she would endeavour to imitate what I had been doing. Mr. Rodatz, master of the German brig *Alf*, coming up the country for a cargo of animals for Mauritius, gave me a copy of 'Peter Simple,' the first English book, besides the Bible and Nautical Almanac, that I had seen for more than two years. As soon as I was alone I of

course sat down and began greedily to feast on its contents, though I had read it several times before leaving England. 'Lemdy' was, as usual, seated beside me, at times looking quietly at me, occasionally catching a fly, or, jumping on my shoulder, endeavouring to pick out the blue marks tattooed there. At last I got up to light a pipe, and on my return found she had taken my seat with the book on her knee, and with a grave expression of countenance was turning over the leaves, page by page, as she had observed me to do; with the difference only that, not being able to read their contents, she turned one after the other as quickly as possible, and that, from her arms being short, and she not yet much used to books, she tore each page from the top nearly to the bottom. She had completed the destruction of half the volume before I returned. During my momentary absences she would often take up my pipe and hold it to her mouth till I came back, when she would restore it to me with the utmost politeness.

These monkeys are caught in various ways. One plan adopted by the Arabs of Tàka has struck me as the most simple, and at the same time as likely to succeed as any other. Large jars of the common country beer, sweetened with dates, and drugged with the juice of the 'òscher' (*Asclepias arborea*), are left near the places where they come to drink. The monkeys, pleased with the sweetness of the beverage, drink largely of it, and soon falling asleep, are taken up senseless by the Arabs, who have been watching from a distance."

Monkeys often exhibit an almost human sagacity. Some travellers were once traversing a wild and dreary part of India, and, under the shade of an umbrageous banyan tree, sat down to their meal. The branches overhead swarmed with large black-faced monkeys. "We had just risen from our meal and were strolling forth from under the shade when one of the monkeys, a young one, fell down from a high branch at our feet. It was quite dead. The clamour that immediately arose above us was quite

deafening. The whole assembly of monkeys clustered together. Long and loud were the chatterings, and varied the grimaces of the tribe, each individual vying with the other in the loudness of his tongue. Their looks and gestures made it apparent that they suspected us as being the cause of the death of their juvenile comrade; and had we had guns in our hands, or any other murderous weapons, we should no doubt have been maltreated. But we were unarmed, and the good sense of the monkeys seemed to tell them that there must be some other culprit. Having come to this conclusion, one monkey, apparently the senior and leader of the whole tribe, separated himself from the rest, ran to the spot on the branch whence the young monkey had fallen, examined it carefully, smelt the branch, and then glided nimbly down one of the pendant roots, with which the banyan tree is so richly furnished, and came to the corpse of the monkey, took it up, examined it minutely, particularly the shoulder, where there was a minute wound. Instinct immediately turned suspicion into certainty. He placed the corpse again on the ground, and turning his gaze in every direction endeavoured to pierce the foliage in search of the murderer. After a little while something seemed to rivet his attention, the next instant he had mounted the tree, sprung to the spot, and with one clutch had seized a long whip-snake, with which he hastened to the ground. Now occurred a most curious scene. The whole monkey rabble, following their leader in his movement, were on the ground almost as soon as he; and then, as many as could, ranged themselves on each side of the snake. Each monkey put his hand on the reptile clutching hold of the skin of the back tightly. At a given signal the executioners dragged the body of the writhing snake backward and forward on the ground till nothing was left of the murderer but the backbone. The mode of execution was at once summary and effectual, and in the way in which it was carried out was manifest the clear understanding which the monkey language conveys."



WATERWORKS AND FOUNTAINS.

THE Palace of Versailles, near Paris, was originally a small château of red brick, erected by Louis XIII. In 1660, Louis XIV. enlarged his predecessor's castle and converted it into the magnificent royal residence that it now is. This stupendous undertaking was completed in 1681 by the architect Mansard. From time to time the palace has been the scene of some of the greatest events in French history.

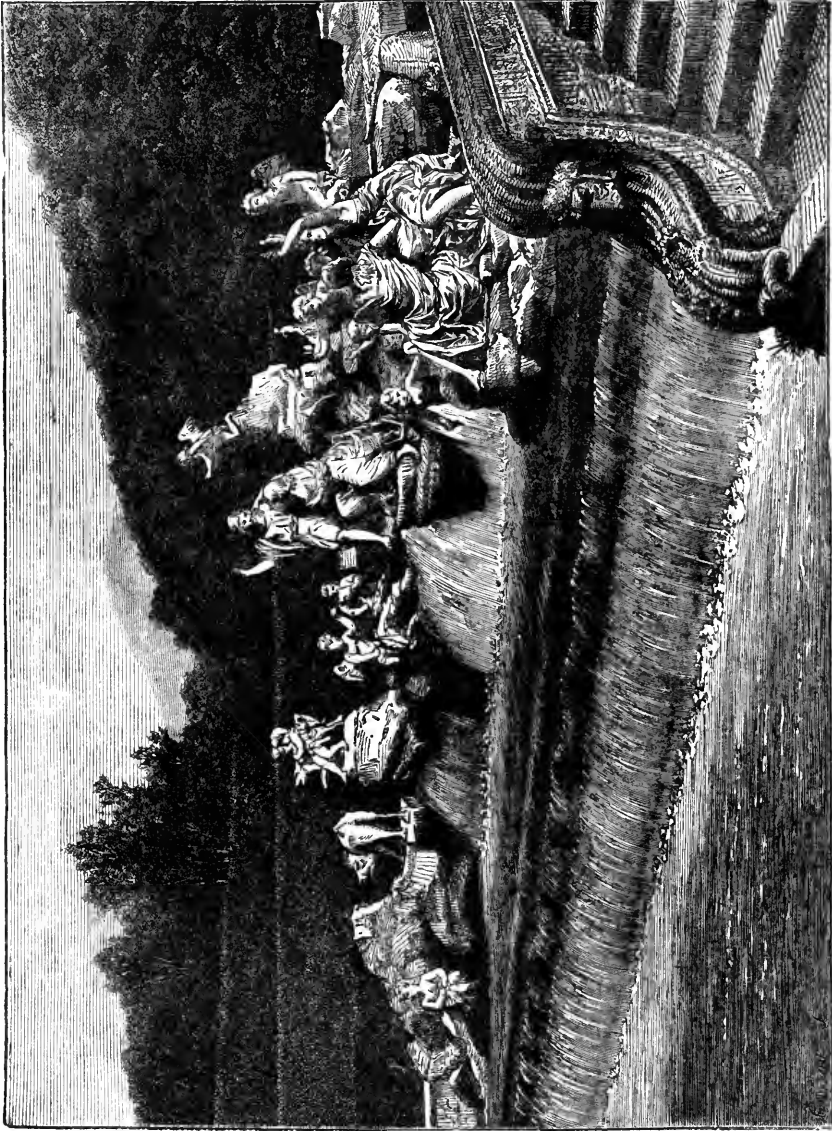
The great attraction, however, of Versailles, is its park and the wonderful waterworks, perhaps the most complete system of fountains in the world. These waterworks are divided into the *Grandes Eaux* and the *Petites Eaux*. The latter are played on the first Sunday of every month during the summer, the former only on fête days or grand festive occasions. Each of the *Grandes Eaux*, or principal waterworks, may be considered as an illustration, in a fanciful way, of some mythological or legendary history or event, the sculptor and the professor of hydraulics having united in the production of the piece. The sculptures are executed in marble and lead; they are mostly of colossal proportions, and their number is wonderful. Some of them are just beneath the surface of the water, in which they appear to dive or swim; others are half submerged and rise like monsters from the deep; and others, again, erect above the flood, rear their tall forms aloft with an imposing air. Some of the most remarkable of the watery mythologies are the following:—The *Bassin de Latone*, which presents five circular basins, one above another, bearing a group of Latona, Diana, and Apollo, on the summit. The goddess is supposed to have demanded vengeance from Jupiter upon the Libyans for refusing

her water. The vengeance is now working; the inhabitants, while undergoing the transformation into toads and frogs, are in the act of spouting water upon Latona from all sides, and it is the liquid arches which complete the picture and impart to it its peculiar effect. The *Bassin d'Appollon* is emblematical of the rising of the sun. The daygod, Apollo, is seen emerging from the flood in a chariot drawn by four splashing steeds and surrounded by horn-blowing tritons, dolphins, and sea monsters.

The *Bassin d'Encelade* represents the Giant Enceladus struggling for liberty under a mass of rocks, which he is endeavouring to hurl towards the sky; from his mouth rises a column of water to the height of fifty feet, and jets issue from his fingers and from the rocks around. The *Bains d'Appollon* represent him seated in a grotto and attended by nymphs, who bathe his feet, braid his hair, and offer him perfumes. On either side of this central group are two others, showing the Tritons in attendance upon the horses of the sun. Jets and floods of water issue from the rocks, and form a foaming lake at the foot of the god. These groups are in white marble, and are the finest in the whole garden. The grandest display of waterworks, however, is to be seen in the *Bassin de Neptune*, where the sea-god rides triumphantly on the waves, surrounded by the whole train assigned by the ancient mythology. The water, thrown aloft in high columns and descending in spray and mist, turned over in graceful arches which cross and intersect each other, or spread in thin gauze-like sheets, forms an ethereal kind of medium through which the groups of dark figures, indistinctly seen, assume an unsubstantial shape in which one half expects to see them vanish away like the old absurd and fanciful faith of which they are now nothing more than the poetical phantoms.

The cost of playing these waterworks is so great, amounting, it is said, to about ten thousand francs for each rehearsal, that their exhibition is comparatively but of rare occurrence.

The spectacle, taken in the whole, may be regarded as perfectly unique. The vast crowd in their gayest attire scattered on the terraces and sloping grounds, among the beds of flowers, the statues, the vases, the



flashing columns and waving arcs of liquid crystal, the spouting gods and grotesque flood-vomiting monsters, contrasted with the gay and ever-surging multitude, the dash of many waters and the

hum of men, all together make up a scene not likely soon to escape from the memory or to relinquish its hold upon the imagination.

The celebrated fountains of the Crystal

Palace at Sydenham, as originally planned, far surpass, in the grandeur and completeness of their design any in the world, not even excepting those of Versailles. The whole system is divided into two series, the upper and the lower. The former comprise six basins in what is called the Italian Fountain, a large central basin, and two smaller ones on each side of it, in all, nine enormous fountains. Beyond and below these is the lower series, which consist of two beautiful water temples, numerous wide cascades, and many groups of separate fountains. These are known as the "Grand Fountains," and are played on special and grand occasions only.

The basins in the Italian Fountain are ornamented by bronze statues; the large centre basin is surrounded by marble copies of some of the greatest ancient and modern works of art; and the cascades are bordered by small bronze fountains—tazzas supported by Cupids. With these exceptions, the fountains are left to the effect which the number and variety of the jets, and the volume of water they deliver, is sure to produce, unaided by the adventitious assistance of architectural or plastic ornament, which forms such a large feature in the Versailles waterworks.

The highest jet of water in the fountain of the large circular basin attains the altitude of 150 feet; and around this is a series of single streams which force their spray to an almost equal height. The diameter of this basin is no less than 196 feet, and a combination of small jets, forming a kind of trellis-work of water, encircles the whole. The fountains in the Italian Gardens are equally graceful, though different in the details of their design. The highest columns rise 90 feet, and the smaller jets which surround them are proportionately high.

The two Grand Fountains in the lower grounds are by far the largest in the world, and impart the grandest effect to the whole series. The outline of their basins is similar in design, each being 784 feet long, with a diameter of 468 feet. The central jet in each is $2\frac{1}{4}$ inches diameter, and reaches the

extraordinary height of more than 250 feet, rather higher than the celebrated steeple of Bow Church, in Cheapside. Around each central jet is a column composed of fifty 2-inch jets. The force of water which presses on the mouth of these pipes is equivalent to 262 lb. to the square inch. When the whole are in operation, 120,000 gallons of water per minute are poured forth by 11,788 jets; and in one simple complete display, lasting a quarter of an hour, nearly 2,000,000 gallons are used.

These fountains are supplied with water from an artesian well, which has a brick shaft of $8\frac{1}{2}$ feet in diameter, and is 247 feet deep. From this depth an artesian bore descends still further for 328 feet, making the entire distance from the surface 575 feet. A supply of water being thus obtained, the next operation is to raise it from the bottom of the hill where the well is situate, to a sufficient height to play the fountains. The pressure required to force the respective jets of water to heights ranging from 5 to nearly 300 feet is obtained in the following simple manner.

Reservoirs are formed at different levels in the grounds, the highest of all being placed on a hill; the second on a level with the basin of the great Central Fountain; and a low lake forms the lowest reservoir. Two pairs of powerful engines are employed—one near the well from which the supply is obtained, and the other close to the highest reservoir. By this system, water is pumped by the lower engine to the intermediate reservoir, and thence to the upper level, whence a second raises it to two enormous tanks, erected on columns, and also to the tanks of two high towers which play the main jets of the Great Fountains. By this arrangement the water, instead of being wasted, is economised, and passing backwards and forwards from one reservoir to the other, is used again and again; the intermediate reservoirs collecting it after a display of the upper series, and the lowest lake forming a similar receptacle when a display of the Great Fountains takes place.

THE DRUIDS AND THEIR TEMPLES.



NEAR the town of Carnac, in Brittany, France, there is an extensive plain, several miles wide, with a flat and barren surface.

It is the last place in the world a tourist would care about visiting, if he were simply travelling in search of beautiful objects. In winter the coldest winds blow over it with wild force; and in summer it is unprotected by trees or shrubbery from the scorching shafts of the sun. But it is not wholly uninteresting, and a short visit to it is well worth the while of the traveller.

There are few houses or trees on the plain; but, it is divided into several avenues by long rows of unhewn upright stones, which, as far as the eye can see, are arranged in almost perfect order, like an army prepared for battle. There are over a thousand of them, and they stretch across the country, from east to west, for nearly seven miles. The largest are twenty-two feet high; and the smallest ten feet. A few have fallen, and others have been carted away; but originally they were placed at regular distances apart.

When you come nearer to them, you will see many signs of age upon them. They are seamed, mossy, and battered. How old do you guess they are? Nobody is quite sure, not even the wisest of the historians; but we may safely say that they have held their present positions for over 1,800 years.

For 1,800 years they have clung to the meagre ground, and withstood the combined assaults of time and storms, while generations of the living have passed away. How did

they come there? The credulous people, to whom all fairy stories were the truest histories, believed that giants brought them and planted them; but we know better than that. They were erected by ordinary men, and we can scarcely imagine how much labour the work cost at a time when there were no railways or massive cranes. Years, perhaps centuries, were occupied, and to the builders the undertaking must have seemed as stupendous as the erection of the Menai Bridge seems to us.

Similar stones are found at other places in Brittany; but the most famous collection is on a plain near the town of Salisbury. This is called Stonehenge, and consists of 140 stones, the smallest of which weigh ten tons and the largest seventy tons. The remains of men and animals have been also found in the vicinity, and these have given the antiquaries a clue as to the objects for which the stones were raised.

Nothing positive is known about them, but it is supposed that they mark the temples of the Druids, a religious order which possessed great power in France and England during the century before and the century after the coming of Christ. Human sacrifices formed one of the most terrible features of their religion. The victims usually were criminals or prisoners of war; but when there were none of these, innocent and unoffending persons were sacrificed.

The favourite resort of the Druids was an island opposite the mouth of the River Loire, in France, where, once every year, between sunrise and sunset, they pulled down and rebuilt the roof of their temples, and any priest who allowed the smallest part of the sacred materials to fall carelessly, was torn in pieces by his fellows.

THE LEAK IN THE DYKE.

A STORY OF HOLLAND.



THE good dame looked from
her cottage
At the close of the pleasant day,
And cheerily called to her little son
Outside the door at play :
"Come, Peter, come ! I
want you to go,
While there is light to see,
To the hut of the blind old
man who lives

Across the dyke, for me ;
And take these cakes I made for him—
They are hot and smoking yet ;
You have time enough to go and come
Before the sun is set."

Then the good wife turned to her labour,
Humming a simple song,
And thought of her husband, working hard
At the sluices all day long ;
And set the turf a-blazing,
And brought the coarse, black bread ;
That he might find a fire at night,
And see the table spread.

And Peter left the brother,
With whom all day he had played,
And the sister who had watched their sports
In the willow's tender shade
And told them they'd see him back before
They saw a star in sight,
Though he wouldn't be afraid to go
In the very darkest night !
For he was a brave, bright fellow,
With eye and conscience clear ;
He could do whatever a boy might do,
And he had not learned to fear.
Why, he wouldn't have robbed a bird's nest,
Nor brought a stork to harm,
Though never a law in Holland
Had stood to stay his arm !

And now, with his face all glowing,
And eyes as bright as the day
With the thoughts of his pleasant errand,
He trudged along the way ;
And soon his joyous prattle
Made glad a lonesome place—
Alas ! if only the blind old man
Could have seen that happy face !
Yet he somehow caught the brightness
Which his voice and presence lent ;
And he felt the sunshine come and go
As Peter came and went.

And now, as the day was sinking,
And the winds began to rise,
The mother looked from her door again,
Shading her anxious eyes,
And saw the shadows deepen,
And birds to their homes come back,
But never a sign of Peter
Along the level track.
But she said : "He will come at morning,
So I need not fret or grieve—
Though it isn't like my boy at all
To stay without my leave."

But where was the child delaying ?
On the homeward way was he,
And across the dyke while the sun was up
An hour above the sea.
He was stooping now to gather flowers,
Now listening to the sound,
As the angry waters dashed themselves
Against their narrow bound.
"Ah ! well for us," said Peter,
"That the gates are good and strong,
And my father tends them carefully,
Or they would not hold you long !
You're a wicked sea," said Peter ;
"I know why you fret and chafe ;
You would like to spoil our lands and
homes ;
But our sluices keep you safe !"

But hark ! Through the noise of waters
 Comes a low, clear, trickling sound :
 And the child's face pales with terror,
 As his blossoms drop to the ground.
 He is up the bank in a moment,
 And, stealing through the sand,
 He sees a stream not yet so large
 As his slender, childish hand.
'Tis a leak in the dyke ! He is but a boy,
 Unused to fearful scenes :
 But, young as he is, he has learned to know
 The dreadful thing that means !
A leak in the dyke ! The stoutest heart
 Grows faint that cry to hear,
 And the bravest man in all the land
 Turns white with mortal fear.
 For he knows the smallest leak may grow
 To a flood in a single night ;
 And he knows the strength of the cruel sea
 When loosed in its angry might.

And the boy ! He has seen the danger,
 And, shouting a wild alarm,
 He forces back the weight of the sea
 With the strength of his single arm !
 He listens for the joyful sound
 Of a footstep passing nigh ;
 And lays his ear to the ground, to catch
 The answer to his cry.
 And he hears the rough winds blowing,
 And the waters rise and fall,
 But never an answer comes to him,
 Save the echo of his call.

He sees no hope, no succour,
 His feeble voice is lost ;
 Yet what shall he do but watch and wait,
 Though he perish at his post !
 So, faintly calling and crying
 Till the sun is under the sea ;
 Crying and moaning till the stars
 Come out for company ;
 He thinks of his brother and sister,
 Asleep in their safe warm bed ;
 He thinks of dear father and mother,
 Of himself as dying—and dead ;
 And of how, when the night is over,
 They must come and find him at last :

But he never thinks he can leave the place
 Where duty holds him fast.

The good dame in the cottage
 Is up and astir with the light
 For the thought of her little Peter
 Has been with her all the night.
 And now she watches the pathway,
 As yester-eve she had done ;
 But what does she see so strange and black
 Against the rising sun ?
 Her neighbours are bearing between them
 Something straight to her door ;
 Her child is coming home, but not
 As he ever came before !

"He is dead !" she cries ; "my darling !"
 And the startled father hears,
 And comes and looks the way she looks,
 And fears the thing she fears :
 Till a glad shout from the bearers
 Thrills the stricken man and wife—
 "Give thanks, for your son has saved our
 land,
 And God has saved his life !"
 So, there in the morning sunshine
 They knelt about the boy :
 And every head was bared and bent
 In tearful, reverent joy.

'Tis many a year since then ; but still,
 When the sea roars like a flood,
 Their boys are taught what a boy can do,
 Who is brave and true and good.
 For every man in that country
 Takes his dear son by the hand,
 And tells him of little Peter,
 Whose courage saved the land.

They have many a valiant hero,
 Remembered through the years ;
 But never one whose name so oft
 Is named with loving tears.
 And his deed shall be sung by the cradle,
 And told to the child on the knee,
 So long as the dykes of Holland
 Divide the land from the sea !

Alice Cary.



THE DWARFS OF CENTRAL AFRICA.

DISTANT regions are always mysterious ones, and, as Paul du Chaillu believed this, it is no wonder that in August, 1863, he sailed away in the little schooner *Mentor* from St. Katherine's Docks on a five years' expedition into the interior of Africa. His aim was to cut across the continent, and to discover the source of the Nile. His preparations were of the most complete and exhaustive character. In October he landed; and after waiting some time, he made preparations for his journey into the interior in company with twenty-five Commimen and an old trusty chief or king, who promised to put him safely under the hands of Olenda, the Ashua king, and to tell him to send our traveller on.

It is not necessary for our present purpose that the journey should be described at length. There were many difficulties in the way—rivers to be passed, mountains to be climbed, forests to be penetrated, gorillas to be encountered; but the worst of all was the plague, which at that time ravaged the country and carried off the natives like sheep. There seemed no end to it, and amongst those who suffered most were Du Chaillu's friends. Of course, in their ignorance, the people considered that it was he who had brought it amongst them, and the farther the traveller penetrated into the interior the more obstinately was this theory held, the greater was the terror of his name, and the more insuperable were the objections they made to his coming in their midst. It is no use arguing with people when they are smitten with a panic, and so Du Chaillu found it. In vain alike were his appeals, his arguments, and his bribes. It was with a sorrowful heart he left Ashua land. The king had died, the plague had destroyed the people, and the survivors

accused him of having been the cause of all the mischief. Even those who did not go so far as this credited him with being in possession of the evil eye, and shunned him accordingly.

At last came the end in the country of the Ashangos. One of Du Chaillu's men in firing a gun unfortunately shot an Ashango man, and to make matters worse the unfortunate bullet entered a tent and slew the queen's sister, and it was all up with poor Du Chaillu. Further exploration was quite out of the question. How to get back safe and sound to the coast with an infuriated population on each side of him was the question to be solved. As it was he did little more than get a glimpse of a dwarf village. Let us quote his particulars respecting them:—

"Early the next morning we started again on our journey through the great forest, passing many hills and several rivulets with queer names. Suddenly we came upon twelve strange little houses scattered at random, and I stopped and asked Kombila for what use these shelters were built. He answered, 'Spirit, these are the houses of a small people called Obongoes.'

'What?' said I, thinking I had not understood him.

'Yes,' repeated Kombila; 'the people who live in such a shelter can talk, and they build fires.'

'Kombila,' I replied, 'why do you tell me a story? How can people live in such little places? These little houses have been built for idols. Look,' said I, 'at those little doors; even a child must crawl on the ground to get into them.'

'No,' said Kombila; 'the dwarfs have built them.'

'How can that be?' I asked, 'for where are the dwarfs now? There are no plantain trees around, there are no fires, no cooking pots, no water jugs.'

'Oh!' said Kombila, 'these Obongoes

are strange people. They never stay long in the same place. They cook on charcoal. They drink with their hands or on large leaves.'

'Then,' I answered, 'do you mean to say that we are in the country of the dwarfs?'

'Yes,' said Kombila; 'we are in the country of the dwarfs. They are scattered in the forest. Their little villages, like the one you see before you, are far apart. They are as wild as the antelope, and roam in the forest from place to place. They are like the beasts of the field. They feed on serpents, rats, and mice, and on the leaves and nuts of the forests.'

'That cannot be,' I said.

'Yes, Oguizi, this is so,' replied the porter. 'Look for yourself;' and they proceeded to the huts.

Is it possible, I asked myself, that there are people so small that they can live in such small buildings as those before me?

How strange the houses of the dwarfs seemed! The length of each house was about that of a man, and the height was just enough to keep the head of a man from touching the roof when he was seated. The materials used in building were the branches of trees bent in the form of a bow, the ends put into the ground and the middle branches being the highest. The shape of each house was very much like that of an orange cut in two. The framework was covered with large leaves, and there were little doors, which did not seem to be more than eighteen inches high, and about twelve or fifteen inches broad. Even the dwarfs must have lain almost flat on the floor in order to pass through. When I say door I mean simply an opening, a hole to get through. It was only a tiny doorway. But I managed to get inside one of these strange little houses, and I found there two beds, which were as curious as everything else about the premises. Three or four sticks on each side of the hut were the beds. Each bed was about eight inches, or at the most ten inches in breadth. One was for the wife, and the other for the husband. A

little piece of wood on each bed makes the pillows. It was almost pitch dark inside, the only light coming from the opening or door. Between the two beds were the remains of a fire, judging by the ashes and the pieces of burnt wood."

These huts did really look like the habitations of men, the homes of a race of dwarfs. After this Du Chaillu describes his visit to a dwarf village.

"After leaving Niembouani we walked through the forest in the most cautious manner, and as we approached the settlement, an Ashango man, who was in the lead, turned his head to usward, put his finger on his lips for us to be silent, and made a sign for us to walk very carefully, and we advanced with more circumspection than ever. After awhile we came to the settlement of dwarfs. Over a small area the undergrowth had been partially cut away, and there stood twelve queer little houses which were the habitation of these strange people, but not a dwarf was to be seen. They had all gone. 'Nobody here?' shouted the Ashangos, and the echo of their voices alone disturbed the stillness of the forest. I looked around at the strange settlement of living dwarfs. There was no mistake about it. The fires were lighted, the smoke ascended from the interior of their little shelters, on a bed of charcoal embers there was a piece of snake roasting, before another were two rats cooking, on the ground there were several baskets of nuts, and one of leaves, with some large wild fruits that had been gathered by the dwarfs in the woods, while near by stood several calabashes filled with water and some bundles of dried fish.

There was indeed no mistake. The huts I had seen on the way to Niembouani were the same as these, and had been made surely by the same race of dwarfs. The Ishogos had told me no idle stories. I wish you could have seen the faces of Rebouka, Igalo, and Macoudia. 'Oh, oh, oh,' they exclaimed. 'Chally, what are we not going to see in the wild country you bring us to!' I lingered a long while, in the hope that the dwarfs would return, but they

did not. We called for them, but our voices were lost. We followed some of their tracks, but it was of no use. 'You cannot overtake them,' said the Ashangos, 'for they can run through the jungle as fast as the gazelle, and as silently as a snake, and they are far off now. They are afraid of you.' Before leaving the settlement I hung on the lower branches of trees surrounding the village strings of beads of bright colours."

Not disheartened by his failure, Du Chaillu again renews his attempt. This time with more success. He actually enters the village, and thus describes his capture of the dwarfs.

"We continued to walk very carefully, and after awhile we came near another settlement of the dwarfs, which was situated in the densest part of the forest. I see the huts. We cross the little stream from which the dwarfs drew their water to drink. How careful we are as we walk towards their habitations, our bodies bent almost double in order not to be easily discovered! I am excited; oh, I would give so much to see the dwarfs, to speak to them. How craftily we advance, how cautious, for fear of alarming the shy inmates! My Ashango guides hold bunches of beads. I see that the beads we had hung on the trees had been taken away.

All our caution was in vain. The dwarfs saw us, and ran away in the woods. We rushed, but it was too late, they had gone. But as we came into the settlement I thought I saw three creatures lying flat on the ground and crawling through their small doors into their houses. When we were in the very midst of the settlement I shouted, 'Is there anybody here?' No answer. The Ashangos shouted, 'Is there anybody here?' I said to the Ashangos, 'I am certain that I have seen some of the dwarfs go into their huts.' Then they shouted again, 'Is there anybody here?' The same silence. Turning towards me, my guides said, 'Oguizi, your eyes have deceived you; there is no one here. They have all fled. They are afraid of you.' 'I am not mistaken,' I answered. I went with

one of the Ashangos towards one of the huts where I thought I had seen one of the dwarfs go inside to hide, and as I came to the little door I shouted again, 'Is there anybody here?' No answer. 'I told you, Oguizi, that they have all run away.' It did seem queer to me that I had suffered an optical illusion. I was perfectly sure that I had seen three dwarfs get inside of their huts. 'Perhaps they have broken through the back part and have escaped,' said I. So I walked round their little houses, but everything was right; nothing had gone outside through the walls.

In order to make sure I again came to the door and shouted, 'Nobody here?' The same silence. I lay flat on the ground, put my head inside the door, and again shouted, 'Nobody here?' It was so dark inside that coming from the light I could not see. So I extended my arm in order to feel if any one was within. Sweeping my arm from left to right, at first I touched an empty bed composed of three sticks. Then feeling carefully, I moved my arm gradually towards the right, when—hallo!—what do I feel? A leg, which I immediately grabbed above the ankle, and a piercing shriek startled me. It was the leg of a human being, and that human being a dwarf! I had got hold of a dwarf!

'Don't be afraid; the Spirit will do you no harm,' said my Ashango guide.

'Don't be afraid,' I said in the Ashango language; and immediately I pulled the creature I had secured by the leg through the door in the midst of great excitement amongst my Commi men.

'A dwarf,' I shouted as the little creature came out. 'A woman,' I shouted again. 'A pigmy.' The little creature shrieked, looking at me. 'Nehende! nehende! nehende!' said she; and her piercing wail rent the air.

What a sight! I had never seen the like. 'What!' said I; 'now I do see the dwarfs of equatorial Africa; the dwarfs of Homer, Herodotus; the dwarfs of the ancients.'

How queer the little old woman looked!

How frightened she was. She trembled all over. She was neither white nor black. She was of a yellow or mulatto colour. 'What a little head; what a little body; what a little hand; what a little foot!' I exclaimed. 'Oh, what queer-looking hair!' said I bewildered. The hair grew on the head in little tufts apart from each other, and the face was as wrinkled as a baked apple. I cannot tell you how delighted I was at my discovery.

So giving my little prize to one of the Ashangos, and ordering my Commi men to catch her if she tried to run away, I went to the other little dwelling, where I thought I had seen another of the dwarfs hide himself. The two little huts stood close together. I shouted, 'Nobody here?' No answer. Getting my head inside the hut through the door, I again shouted, 'Nobody here?' No answer. I moved my right hand to see if I could feel anybody, when, lo! I seized a leg, and immediately heard a shriek. I pulled another strange little dwarf out of the door. It was also a woman, not quite as old as the first, but having exactly the same appearance.

The two dwarf women looked at each other, and began to cry and sing mournful songs, as if they expected to be killed. I said to them, 'Be not frightened.'

Then the Ashangos called to the last dwarf who had tried to come out, that it was no use, I had seen them all. They had hardly spoken when I saw a little head popping out of the door, and my Ashangos made the creature come out. It was a woman also, who began crying, and the trio shrieked and cried, and cried and shrieked, wringing their hands, till they got tired. They thought their last day had come.

'Don't be afraid,' said the Ashangos; 'the Oguizi is a good Oguizi.' 'Don't be afraid,' said my Commi men. After a while they stopped crying, and began to look at me more quietly.

For the first time I was able to look quietly at these little dwarfs. They had prominent cheek-bones, and were yellow, their faces being exactly of the same colour

as the chimpanzee; the palms of their hands were almost as white as those of white people; they seemed well proportioned, but their eyes had an untamable whiteness that struck me at once; they had thick lips and flat noses like the negroes, their foreheads were low and narrow, and their cheek-bones prominent, and their hair, which grew in little short tufts, was black, with a reddish tinge.

After a while I thought I heard a rustling in one of the houses. So I went there, and found it inside filled with the tiniest children. They were exceedingly shy. When they saw me they hid their heads, just as young dogs or kittens would do, and got into a huddle and kept still. These were the little dwarfish children, who had remained in the village under the care of the three women while the dwarfs had gone into the forest to collect their evening meal; that is to say, nuts, fruits, and leaves, and to see if the traps they had set had caught any game.

I immediately put beads around the necks of the women, gave them a leg of wild boar and some plantains, and told them to tell their people to remain and not be afraid. I gave some meat to the little children, who as soon as I showed it to them seized it just in the same manner that Fighting or Ugly Tom would have done, only instead of fighting, they ran away immediately. Very queer specimens these little children looked to be. They were, if anything, lighter in colour than the older people, and they were such little bits of things that they reminded me, I could not help it, of the chimpanzees and nshiego mbouvés I had captured at different times, though their heads were much larger.

I waited in vain. The inhabitants did not come back. I told the women that the next day I should return and bring them meat (for they are said to be very fond of it) and plenty of beads."

As Du Chaillu made friends of the people, it is a pity he did not bring a few away with him. Certainly it would have been a little more satisfactory to that large class

with whom seeing is believing, and to that class, almost equally numerous, who are of an exceedingly sceptical turn of mind. To many the solution of this dwarf problem would have been quite as interesting as the discovery of the sources of the Nile.

"If you want one of these to take away with you," said the Ashango guide, "we will capture one for you, if you will give us beads and copper rings."

"No, no," was his reply; "the Spirit does not want to capture people. He wants only to see people."

He was, according to his own account, quite at home with the dwarfs, and during his stay quite mastered all their manners and customs.

One day, he tells us, he went hunting in order to kill meat and give it to the dwarfs, and "their delight was great when I brought back five monkeys. A little while after I had put the monkeys on the ground, I said, 'Dwarfs, let us be good friends. Don't you see that I have no desire to kill you or capture you? I wish only to know you well.

Every time I come to see you I bring you food and nice things; that is so sweet, eh?' The hours passed away, and as evening approached I said, 'Dwarfs, what do you say to my spending the night in your settlement?'" The proposal was accepted with immense applause. "The little dwarfs," he writes, "went into the woods to collect there firewood for me, and to look after the traps. After awhile they came back, and they too brought food. Miseund brought me a basket of wild berries, and the other Obongoes presented me with game consisting of three beautiful fat rats, a nice little mouse, one squirrel, two fish, and a piece of snake. They laid these things before me. To please them I ordered the squirrel to be cooked on a bright charcoal fire, and how delighted they were to see me eat it! How they shouted as they saw me take mouthful after mouthful!"

And then, when on the morrow Du Chaillu bade them good-bye, they said to him, "Be kind to other dwarfs, as you have been to us."

THE AMERICAN KING OF BEASTS.

THE JAGUAR.



HE jaguar has been called the American "king of beasts;" and his title to that rank is less doubtful than that of his Old-

World relation, the lion, whose claim to superior strength, swiftness, and sagacity is not only disputed by the elephant,

but by the gorilla, the orang-outang and the rhinoceros, and above all by the Bengal tiger, who is his match in strength and more than his match in swiftness and cunning. The grizzly bear of the Rocky Mountains surpasses him in weight, and perhaps in the bone-crunching power of

his jaws, but these advantages are more than offset by the greater agility and general vigour of the tropical giant-cat. Governor Pacheco, of California, lassoed an old grizzly in the Contra Costa Mountains a few years ago, and dragged him home to his mother's ranch; and the same feat has been repeatedly performed by other sportsmen of his native state; but, to use the words of an old Mexican hunter of my acquaintance, "You might as well try to lariat Old Scratch himself as an old jaguar."

In the summer of 1866 a French gunboat, *La Belle Rhone*, landed ammunition and supplies for the Maximilian Government in the harbour of Sisal, and before leaving the harbour took a fine jaguar on board that had been purchased by an agent

of the new Zoological Gardens of Mar-seilles. The brute had been captured in a pitfall in the neighbourhood of Merida, and, being a full-grown and beautiful specimen, was preferred to different tame ones which the citizens of the town offered for sale, though his ferocity made it necessary to confine him in a cage of *charca* sticks, a species of wood that does not easily break, but splinters like bamboo, and resists the attempts of any animal to gnaw it by lacerating its gums. When the cage was brought on board, the captive seemed to know that his remaining chances of escape were numbered by minutes, and braced himself for a last effort. In the moment when his moveable prison was being lowered through the hatchway he forced his paw through the staves, reached out, and tore the shoulder of the nearest sailor with a succession of ripping blows. The man jumped aside, yelling murder, his mates slipped their grip, and the cage, jaguar and all, tumbled down fifteen feet, straight into the hold, and upon a pile of pig-iron ballast which fractured its bottom board. The men stood aghast, and the shrieks and the rush of stampeding labourers below confirmed their worst fears: the jaguar was running at large in the hold of the ship!

Ignorant of the ladder and stairway conveniences, the brute attempted to regain the *superas auras* of the deck by the same road he had come down, and after jumping from rafter to rafter reached the luminous gate of the upper world by a desperate leap; and in the nick of time, for the sailors on deck had recovered their wits, and were dragging a trap-door toward the dangerous hole. They were letting it down when its edge on one side came in contact with some obstacle; a paw was pushed through

from below, a frightful head quickly after, and, heedless of the bellowed protests of the first mate, two of the men broke and ran. They returned, the one with a hand-spike, the other with a heavy bucket, but the delay had been fatal: the brute had got its second paw through, and, in spite of a shower of blows, enlarged the opening sufficiently to free the rest of his body. A *sauve qui peut* followed, and the tiger jumped on deck and stood there for a second, glaring around with bloodshot eyes. But only for a second: fully conscious, it seemed that there was not another moment to lose, he used the trap-door as a jumping board, and cleared the gunwales with a flying leap.

The boat had got under weigh some time ago, but had followed an alongshore course, so that the distance to terra firma was not very considerable—a mile, or a mile-and-a-half at the farthest. But Don Tigrón was by no means out of trouble yet: rifle-balls, carbine-balls, and pistol-balls made the water fly around his head, and the marines were just coming up with their muskets, when the French lieutenant interfered: “Cessez-ça, mes Cosaques! A chap that could beat us fair and square on our own deck ought not to be shot in the water like a cowardly deserter; give him a chance.”

The chance was poor enough, anyhow, for the Bay of Sisal at that time swarmed with sharks and spear-fish; but fortune favours the brave, and to his intense disgust the man with the torn shoulder saw the brute land on the opposite shore, shake himself, and disappear in the willow thicket. Before night he was probably back to his old haunts in the Lagotasso, a wiser if not a better jaguar.





SECRETS OF THE ATLANTIC CABLE.

BELIEVE that the youngsters in our family (says a writer in *St. Nicholas*) consider my study a very pleasant room. There are some books, pictures, and hunting implements in it, and I have quite a large number of curious things stored in little mahogany cabinets, including a variety of specimens of natural history and articles of savage warfare, which have been given to me by sailors and travellers. In one of these cabinets there are the silver wings of a flying-fish, the poisoned arrows of South Sea cannibals, sharks' and alligators' teeth, fragments of well-remembered wrecks, and an inch or two of thick tarred rope.

The latter appears to be a common and useless object at the first glance, but when examined closely it is not so uninteresting. It measures one and one-eighth of an inch in diameter, and running through the centre are seven bright copper wires, surrounded by a hard, dark brown substance, the nature of which you do not immediately recognise. It is gutta-percha, the wonderful vegetable juice, which is as firm as a rock while it is cold, and as soft as dough when it is exposed to heat. This is inclosed within several strands of Manilla hemp, with ten iron wires woven among them. The hemp is saturated with tar to resist water, and the wires are galvanized to prevent rust. You may judge, then, how strong and durable the rope is, but I am not sure that you can guess its use.

Near the southern extremity of the western coast of Ireland there is a little harbour called Valentia, as you will see by referring to a map. It faces the Atlantic Ocean, and the nearest point on the opposite shore is a sheltered bay prettily named Heart's Content, in Newfoundland. The waters

between are the stormiest in the world, wrathful with hurricanes and cyclones, and seldom smooth even in the calm months of midsummer. The distance across is nearly two thousand miles, and the depth gradually increases to a maximum of three miles. Between these two points of land—Valentia in Ireland and Heart's Content in Newfoundland—a magical rope is laid, binding America to Europe with a firm bond, and enabling people in London to send instantaneous messages to those in New York. It is the first successful Atlantic cable, and my piece was cut from it before it was laid.

Copper is one of the best conductors of electricity known, and hence the wires in the centre are made of that metal. Water, too, is an excellent conductor, and if the wires were not closely protected, the electricity would pass from them into the sea, instead of carrying its message the whole length of the line. Therefore, the wires must be incased or insulated in some material that will not admit water and is not itself a conductor. Gutta-percha meets these needs, and the hemp and galvanized wire are added for the strength and protection they afford to the whole.

It was an American who first thought of laying such an electric cable as this under the turbulent Atlantic. Some foolish people laughed at the idea and declared it to be impracticable. How could a slender cord, two thousand miles long, be lowered from an unsteady vessel to the bottom of the ocean without break? It would part under the strain put upon it, and it would be attacked by marine monsters, twisted and broken by the currents. At one point the bed of the sea suddenly sinks from a depth of two hundred and ten fathoms to a depth of two thousand and fifty fathoms. Here the strain on the cable as it passed over the ship's stern would be so great that it certainly must break. More than this, the slightest flaw—a hole smaller

than a pin's head—in the gutta-percha insulator would spoil the entire work, and no remedy would be possible. A great many people spoke in this way when the Atlantic cable was first thought of, as others, years before, had spoken of Watt and Stephenson. But Watt invented the steam-engine, Stephenson invented the locomotive, and Cyrus Field bound Great Britain to the United States by telegraph.

Early in 1854 Mr. Field's attention was drawn to the scheme for a telegraph between Nova Scotia and Newfoundland, in connection with a line of fast steamships from Ireland to call at St. John's, Newfoundland. The idea struck him that if a line were laid to Ireland, lasting benefit would result to the world. So he called together some of his intimate friends, including Peter Cooper, Moses Taylor, Chandler White, and Marshall O. Roberts, and they joined him in organizing the "New York, Newfoundland, and London Telegraph Company," which was the pioneer in the movement to connect the two continents by a telegraph cable, and without whose aid its consummation would have been indefinitely delayed.

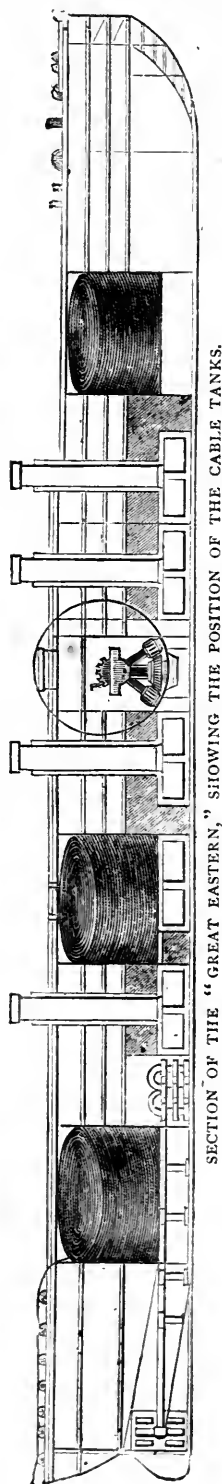
The work was costly and difficult. The first part consisted in surveying the bottom of the sea for a route. This was done by taking "soundings" and "dredgings." As some of you are aware, "sounding" is an operation for ascertaining the depth of the sea, while "dredging" reveals what plants and living creatures are at the bottom. After much patient labour a level space was found between Ireland and Newfoundland, and it seemed to be so well adapted to the surveyor's purposes that it was called the "Telegraphic Plateau."

Two or three large vessels were next equipped, and sent out with several thousand miles of cable on board, which they proceeded to lay. But the fragile cord—fragile compared with the boisterous power of the waves—broke in twain, and could not be recovered. A second attempt was made, and that failed too. Brave men can overcome adversity, however, and the little

band of scientific men and capitalists were brave men and were determined to succeed. Each heart suffered the acute anguish of long-deferred hope, and each expedition cost many hundred thousands of dollars. Nevertheless, the promoters of the Atlantic cable sent out a third time, and when failure met them again, it seemed to common minds that their scheme was a settled impossibility. Not so with the heroes. Each failure showed them some faults in their plans or machinery. These they amended. Thus, while they were left at a distance from the object of their ambition, they were brought a little nearer to its attainment.

Guided by the light of past experience, they equipped a fourth expedition. The *Great Eastern* was selected, and her interior was altered for the purpose. She was, and is still, the largest vessel afloat. Her length is six hundred and ninety-five feet; her breadth eighty-five feet, and her burthen twenty-two thousand tons. One of the principal causes of failure in previous expeditions was the inability of the cable to endure the severe strain put upon it in stormy weather as it passed from an ordinarily unsteady vessel into the sea. The *Great Eastern*, from her immense size, promised to be steady in the worst of gales. Her hold was fitted with three enormous iron tanks—a "fore" tank, a "main" tank, and an "after" tank. The main tank was the largest, and eight hundred and sixty-four miles of cable were coiled in it. Eight hundred and thirty-nine miles in addition were coiled in the after tank, and six hundred and seventy miles in the fore tank, making in all two thousand three hundred and seventy-four miles of cable. The food taken on board for the long voyage in prospect consisted of twenty thousand pounds of butcher meat, five hundred head of poultry, one hundred and fourteen live sheep, eight bullocks, a milch cow, and eighty tons of ice.

What is called the shore end of the cable—i.e., that part nearest the shore, which is thicker than the rest—was first laid



by a smaller steamer. It extended from Valentia to a point twenty-eight miles at sea. Here it was buoyed until the great ship arrived. On a wet day in July, 1866, it was joined with the main cable on board the *Great Eastern*, and on the same day that vessel started on her voyage to Newfoundland.

It may seem a simple matter to distribute or "pay out" the cable, but in practice it is exceedingly difficult. Twenty men are stationed in the tank from which it is issuing, each dressed in a canvas suit, without pockets, and in boots without nails. Their duty is to ease each coil as it passes out of the tank, and to give notice of the marks painted on the cable one mile apart. Near the entrance of the tank it runs over a grooved wheel and along an iron trough until it reaches that part of the deck where the "paying out" machine is placed. The latter consists of six grooved wheels, each provided with a smaller wheel, called a "jockey," placed against the upper

side of the groove so as to press against the cable as it goes through, and retard or help its progress. These six wheels and their jockeys are themselves controlled by brakes, and after it has been embraced by them the cable winds round a "drum" four times. The drum is another wheel four feet in diameter and nine inches deep, which is also controlled by powerful brakes; and from it the cable passes over another grooved wheel before it gets to the "dynamometer" wheel. The dynamometer is an instrument which shows the exact degree of the strain on the cable, and the wheel attached to it rises and falls as the strain is greater or less. Thence the cable is sent over another deeply grooved wheel into the sea.

You will remember what I said about insulation,—how a tiny hole in the gutta-percha would allow the electricity to escape. On deck there is a small house, which is filled with delicate scientific instruments. As the cable is paid out, it is tested here. If a wire or a nail or a smaller thing is driven through it, and the insulation is spoiled, an instrument called the galvanometer instantly records the fact, and warning is given at all parts of the ship. The man in charge touches a small handle, and an electric bell rings violently in the tank and at the paying-out machinery. At the same time a loud gong is struck, at the sound of which the engines are stopped. Delay might cause much trouble or total failure, as the injured section must be arrested and repaired before it enters the water.

The great steamer went ahead at the rate of five nautical miles an hour, and the cable passed smoothly overboard. Messages were sent to England and answers received. The weather was bright, and all hands were cheerful. On the third day after the "splicing" of the shore-end with the main cable, that part of the ocean was reached where the water suddenly increases in depth from two hundred and ten fathoms to two thousand and fifty. One of the earlier cables broke at this place and was

lost for ever. The electricians and engineers watched for it with anxious eyes. It was reached and passed. The black cord still travelled through the wheels unbroken, and the test applied by the galvanometer proved the insulation to be perfect. The days wore away without mishap until the evening of July 17, when the sound of the gong filled all hearts with a sickening fear.

The rain was falling in torrents and pattering on the heavy oil-skin clothing of the watchers. The wind blew in chilly gusts, and the sea broke in white crests of foam. A dense and pitchy cloud issued from the smoke-stacks. The vessel advanced in utter darkness. A few lights were moving about, and shadows fell hither and thither as one of the hands carried a lantern along the sloppy deck. The testing-room was occupied by an electrician, who was quietly working with his magical instrument, and the cable could be heard winding over the wheels astern, as the tinkling of a little bell on the "drum" recorded its progress.

The electrician rose from his seat suddenly, and struck the alarum. The next instant each person on board knew that an accident had happened. The engines were stopped and reversed within two minutes. Blue lights were burned on the paddle-boxes, and showed a knot in the cable as it lay in the trough.

Two remedies seemed possible. One was to cut the cable, and support one end in the water by a buoy until the rest could be unravelled. The other was to unravel the cable without cutting it.

It is a very intricate knot that an old sailor cannot untie, and the old sailors on the *Great Eastern* twisted and untwisted coil after coil until they succeeded

in untying this one. The insulation remained perfect, and in a few hours all was right again. The accident caused much ill foreboding, however, as it showed how slight an occurrence might bring the expedition to a disastrous end.

On July 27, after a voyage of fifteen days, the *Great Eastern* finished her work, and her part of the cable was attached to the American shore-end, which had been

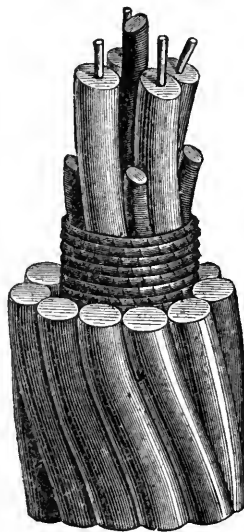
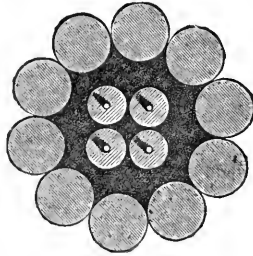
laid by another vessel. Some of you will remember the rejoicings in the United States over the event. It surpassed all other achievements of the age, and equalled the invention of the telegraph itself.

Thus, after infinite labour and repeated failures, the brave men who undertook the work accomplished it. A year before, their third cable had broken in mid-ocean, and it was now proposed to "grapple" for it. The *Great Eastern* was fitted out with apparatus, which may be likened to an enormous fishing-hook and line, and was sent to the spot where the treasure had been lost. The line was of strong hemp

interwoven with wire. Twice the cable was seized and brought almost to the surface. Twice it slipped from the disappointed fishermen, but the third time it was secured. It was then united with the cable on board, which was "paid out" until the great steamer again reached Newfoundland, and a second telegraph wire united the two continents.

The scene on board as the black line appeared above water was exciting beyond description. It was first taken to the testing-room, and a signal intended for Valentia

was sent over it, to prove whether or not it was perfect throughout its whole length. If it had proved to be imperfect, all the



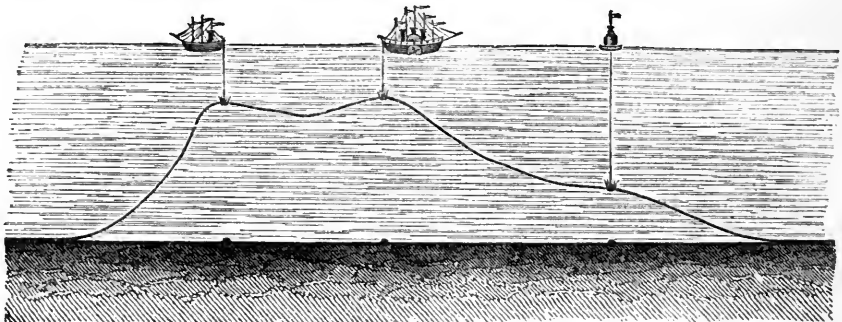
labour spent upon it would have been lost. The electricians waited breathlessly for an answer. The clerk in the signal-house at Valentia was drowsy when their message came, and disbelieved his ears. Many disinterested people, and even some of the promoters of the cable, did not think it possible to recover a wire that had sunk in thousands of fathoms of water. But the clerk in the little station connected with the shore-end of the cable of 1865 suddenly found himself in communication with a vessel situated in the middle of the Atlantic. The delay aggravated the anxious watchers on the ship, and a second signal was sent. How astonished that simple-minded Irish telegraph-operator was! Five minutes passed, and then the answer came. The chief electrician gave a loud cheer,

which was repeated by every man on board, from the captain down to his servant.

There are now four cables in working order, and the cost of messages has been reduced twenty-five per cent. The New York newspapers now contain nearly as much European news as the London newspapers themselves.

We take from Mr. Russell's graphic diary the account of the actual breaking of the cable, on Wednesday, the 2nd of August, which he has justly called "a sad and memorable day." There had been a strong gale the night before, but the *Great Eastern* scarcely felt it, and went on paying out cable, without let or hindrance, at a high rate of speed—seven knots an hour:—

"About day-break the wind suddenly



GRAPPLING AND BUOYING THE CABLE.

shifted to N.N.W. and fell to a light breeze, and at four a.m., the course was altered to N.W. by W. $\frac{1}{2}$ W., the sea falling. Morning broke beautifully, and the cable ran out easily, at the rate of seven miles an hour. At 5.30 a.m., ship's time, the paddles were reversed by order from the electrician's room. In fact, at eight a.m., Greenwich time, or a minute after, while the electricians were passing the first of the half-hourly series of currents to the shore, the galvanometer detected a flaw of electricity which indicated a serious fault. The tests gave no result as to locality, for the fault was very varying; but it was generally believed to be not far from the stern of the ship. While Mr. Cyrus Field was on watch

in the tank, a little before the time of the accident, a grating noise was audible as the cable flew over the coil. One of the experienced hands immediately said, 'There is a piece of wire,' and called to the lookout man above to pass the information aft; but no notice appears to have been taken for some time of the circumstance. After the ship had been stopped, and the remainder of the fluke in which the fault was supposed to have occurred had been paid out, a piece of wire was seen projecting out of the cable in the fluke, and, on one of the men taking it in his fingers and trying to bend it down, the wire broke short off. It was nearly three inches long, and evidently of hard, ill-tempered metal, which

had flown out through the strands of the cable in the tank. The fault in the cable which had gone overboard might obviously have been caused by such a piece of wire, and there could be no doubt that the wire of the outer covering of the cable was capable of inflicting injury on the gutta-percha it was intended to protect. The discovery was in some measure a relief to men's minds, because it showed that one certainly, and the second possibly, of the previous faults might have been the results of similar accident. It was remarked, however, that this fault occurred on the same watch as all the previous misfortunes had occurred.

As the fault was too serious to be overlooked, and as there was a difficulty in detecting its situation, preparations were made to get the picking-up apparatus ready. Previous to doing so, two cuts were made in the cable; the first near the old splice, between the main and the fore tank (cable all right); the second cut three miles in-board, which showed the fault to be in that portion of the cable which was overboard. The wire rope and the chain were now secured to the cable forward, which showed a maximum strain of $23\frac{1}{2}$ cwt.; and at 9.55, Greenwich time, the cable was severed and went over the stern, 1186 miles having been paid out when the end splashed into the water. With less difficulty than usual—in fact, with comparative facility—the cable was hauled in over the bows at 10.8 a.m., Greenwich time. The strain in it, according to the dynamometer, was from 50 cwt. to 55 cwt., though the latter figures represented the maximum only reached on one occasion. We were nearly in 2000 fathoms of water; but it was considered a favourable circumstance that we had not got a few miles farther, as we should then have been in the very deepest part of the Atlantic plateau. As far as could be ascertained, the ship was now over a gentle elevation, on the top of which there was only 1950 fathoms of water. The picking-up was, as usual, exceedingly tedious, and one hour and forty-six minutes elapsed before one

mile was got on board; then one of the engines' eccentric gear got out of order, so that a man had to stand by with a hand-spike, aided by a wedge of wood and an elastic band, to aid the wretched engine. Next, the supply of steam failed, and when the steam was got up it was found that there was not water enough in the boilers; and so the picking-up ceased altogether for some time, during which the ship forged ahead and chafed against the cable.

Let the reader turn his face towards a window, and imagine that he is standing on the bows of the *Great Eastern*, and then, of course, on his right will be the starboard, on his left the port side of the ship. In front, fixed in the bows, is a large V-wheel, as it is technically termed, with a smaller wheel of the same kind on the same axis at each side, on which the cable is drawn as it is pulled up from the sea by the picking-up apparatus, and thence is wound under the dynamometer and drum-wheels till it has passed the breaks and is coiled down aft in safety. There are at the bows of the *Great Eastern* two large hawse-pipes, the iron rims of which project nearly a foot beyond the line of the stem. After two miles of cable had been picked up, the *Great Eastern* was forced to forego the use of her engines because the steam failed, while her vast broadside was exposed to the wind, which was drifting her to the larboard or left-hand side, till by degrees an oblique strain was brought to bear on the cable, which came up from the sea to the bows on the right side. Against one of the hawse-pipes the cable now caught on the left-hand side, while the ship kept moving to the left, and thus chafed and strained the cable greatly against the bow; for now it was held by this projection, and did not drag from the V-wheel. The *Great Eastern* could not go astern lest the cable should be snapped; and without motion some way there is no power of steerage. At this critical moment, too, the wind shifted, so as to render it more difficult to keep the head of the ship up to the cable. As the cable then chafed so much that in two places damage was

done to it, a shackle chain and a wire rope belonging to one of the buoys were passed down the bow over the cable and secured in a bight below the hawse-pipes. These were hauled so as to bring the cable, which had been caught on the left-hand side by the hawse-pipes, round to the right-hand side of the bow, the ship still drifting to the left; while the cable, now drawn directly up from the sea to the V-wheel, was straining obliquely from the right with the shackle and rope attached to it. It was necessary to do this instead of veering away, as we were near the end of the cut of cable.

The cable and the wire rope together were now coming in over the bows in the groove in the larger wheel, the cable being wound upon a drum behind by the machinery, which was once more in motion, and the wire rope being taken in round the capstan. But the rope and cable, as I have tried to explain, were not coming up in a right line, but were being hauled in, with a great strain on them, at an angle from the right-hand side, so that they did not work directly in the V in the wheel. Still, up they came. The strain was shown on the dynamometer to be very high, but not near breaking-point. At last, up came the cable and wire rope shackling together on the V-wheel in the bow. They were wound round on it, slowly, and were passing over the wheel together, the first damaged part being inboard, when a jar was given to the dynamometer, which flew up from 60 cwt.—the highest point marked—with a sudden jerk, $3\frac{1}{2}$ inches. In fact, the chain shackle and wire rope clambered, as it were, up out of the groove on the right-hand side of the V of the wheel, got on the top of the rim of the V-wheel, and rushed down with a crash, on the smaller wheel, giving, no doubt, a severe shock to the cable to which it was attached. The machinery was still in motion, the cable and the rope travelled aft together, one towards the capstan, the other towards the drum, when, just as the cable reached the dynamometer, it parted, thirty feet from the bow, and with one bound leaped, as it were, into the sea."

"It is not possible," Mr. Russell goes on to say, "for any words to portray the dismay with which the sight was witnessed and the news heard." After brief consideration, it was determined to get out the grapnels, and search for the cable at the bottom of the Atlantic. Twice it was recovered and hooked, and raised a considerable way towards the surface, but proved too heavy for the strength of the lifting apparatus. The *Great Eastern* remained near the spot eight or nine days, and then, leaving two buoys to mark the position of the cable, turned her head back towards Europe. Mr. Russell thus describes the final attempt, on the evening of Friday, August 11th:—

"A line consisting of 1600 fathoms of wire rope, 220 fathoms of hemp rope, and 510 fathoms of Manilla was prepared and carefully examined, of which 1760 fathoms were pronounced good, the rest being rather suspicious. The grapnel soon touched the bottom. For some time the ship drifted onwards; but at 3.50 p.m., ship's time, the strain on the rope rose to 60 cwt. as it came in over the bows, easily, by the new capstan improvements. The ship's head varied from N.N.W to W. by S., and as the rope came in the screw was set gently to work at times to keep it to the wind, which had increased somewhat, accompanied by showers of rain. The dynamometer index rose higher and higher, till it reached 80 cwt., and once, as a shackle came through the machinery, flew up to 106 cwt. It was a certainty that the Atlantic cable had been caught for the third time, and was fast held in the grapnel coming up from its oozy bed. Is there need to say that the alternations of hope and fear which agitated all on board reached their climax? There was an intensity of quiet excitement among us, such as men feel when they await some supreme decree. Some remained below, others refused to go forward, where the least jar of the machinery put their hearts in their mouths; others walked in the saloon or upon the after-deck abstractedly. At 9.40 p.m., Greenwich

time, just as 765 fathoms had been got in, a shackle on the hemp hawser passed through the machinery, and in a moment afterwards the rope parted near the capstan, and flew over the bows with a whistling sound like the rush of a round shot. In all the crowd of labourers not one was touched, because the men held on to their stoppers, and kept the end straight. But there lay the cable beneath us once more, buried under coils of rope and wire, to which had just been added 1750 fathoms more. Orders were then given to get up steam, and all haste was made to return from the

disastrous spot, which will bear no monument of such solicitous energy, such noble toils, such ill-requited labours. The buoys which mark the place where so much went down will soon be waifs and strays in the strong seas of autumn, and nothing will be left of the expedition but entries in log-books, 'lat. 51 24, long. 38 59, end of cable N. 50 W. 1 $\frac{3}{4}$ miles,' and such memories as strengthen those who have witnessed brave fights with adverse fortune and are encouraged to persevere in the sure conviction that the good work will be accomplished in the end."

A MOUNTAIN OF COAL.



WHEN the blazing fire in our grates receives a large proportion of our attention, and the thoughts of many a housewife stray naturally to the coal-cellar and its supply, it may not be amiss to look into one of the great coal-cellars of our globe, and speculate upon what we find there. English consumers are perhaps never likely to burn a block from its countless tons of fuel, for they are stowed away in a certain county of Pennsylvania: and instead of being accumulated in the deep places of the earth, they lie heaped, as though in a profusion which had exhausted underground storage, in a mountain summit far above the level of the sea.

In the year 1792, a man walking over this summit saw, thrust out of the green ground, the angle of a rock of coal. He examined further, and found that the grass was merely a carpet over a flooring of such coal: he informed General Weiss, owner of the land, of the value which lay beneath his soil. The General, being ill advised, sold the whole crest of the mountain next year for a trifling sum to the Lehigh Coal Company, so called from the little river which they

hoped to make their channel of traffic. For the next thirty years they seemed to have made a bad bargain: before 1821, scarce a thousand tons of the treasure had been sold. But the forests of the country were dying out, perishing in ten thousand stoves, which ere long must have other fuel; the prejudice against coal gradually yielded to the necessity of the case, and, in 1830, the sales of the company had amounted to a hundred thousand tons. The desolate wilderness, amid which rose the coal summit, was becoming alive with miners' cabins and needful workshops; the wild rocky mountain stream called Lehigh was educated into a sort of tame canal, restrained within dams and deepened; twenty such dams and sluice-gates were erected on the watercourse, between the little town of Mauch Chunk, nearest the mine, and the newer settlement of Whitehaven: the latter so named from its analogy to the English port. The former name, Mauch Chunk, is Indian, signifying "The Bear's Mountain," a reminiscence of the olden forest times when as yet the country was verily "Penn's Sylvain," or woodland, and the red men hunting the savage denizens of the wilderness knew nothing of the grand civilizing agent—the coal—beneath their tread. A thousand feet above the little town

risers Mount Piscau, crested with the combustible summit before described, which, to use Kohl's words, "can be cut up like a loaf, in slices, and shoveled away."

Rather more elaborate, however, is the mode of working, even by his own account. Though in many places the coal lies just under the turf, so that a labourer's pickaxe and spade can lay it bare; yet, when the seams come to be sixty feet thick, and lie in sloping strata, a regular system of cutting open is required. When the beds are inclined to the surface at an angle of eighteen or twenty degrees, a passage called a gangway is bored horizontally from the side of the mountain through a series of the seams; from this gangway upwards, other openings are bored along the seams, and here the coal is excavated, and sent gliding down these shoots to the wagon standing on the tramway below the opening, which conveys it to the railway, in daylight, at the end of the horizontal passage. Tier above tier is worked thus—a congeries of level and sloping passages permeating the whole mine at regular intervals, wherever the coal lies at a suitable angle to roll by its own weight to the wagons. We should mention that in each of the shoots there is a slide or trap-door, to regulate the flow of the coal downwards. Mules are the motive power on the tramways inside the mine; but where the seams are horizontal, a steam-engine on the surface is used to draw up wagons full of coal through a shaft, as in our English mines.

"Robbing the pillars" is a perilous expedient, sometimes adopted by incautious workmen, and which has more than once led to disaster by weakening the supports of the passages. By order, walls ten feet thick are left at certain intervals. The traveller Kohl walked through many of the spacious vaulted passages, and climbed the ladders into the shoots, and thoroughly inspected the system of working. He found a thousand men there, healthy and hard-working; in their idle hours they constituted a corps of military volunteers on Summit Hill, and their homes were in a variety of villages in

the two neighbouring valleys of Mauch Chunk and Panther's Creek. They came up to their work daily, and the coal went down, by means of a railway without locomotive, worked by an endless chain. One line is called the "Heavy Down Track," because trains of loaded wagons glide by it to Mauch Chunk continually; another, the "Back Track," because it brings up empty coal wagons from the river continually, in general, about seventy times in a working day. The whole surface of the coal crest of the mountain is a network of rails. The second railway in the United States was opened here in 1827. Our traveller descended from the mines in a carriage whose own weight was its propeller; and the conductor's duty was to govern the break machinery as the train glided with arrow swiftness by a winding tramway through thickets.

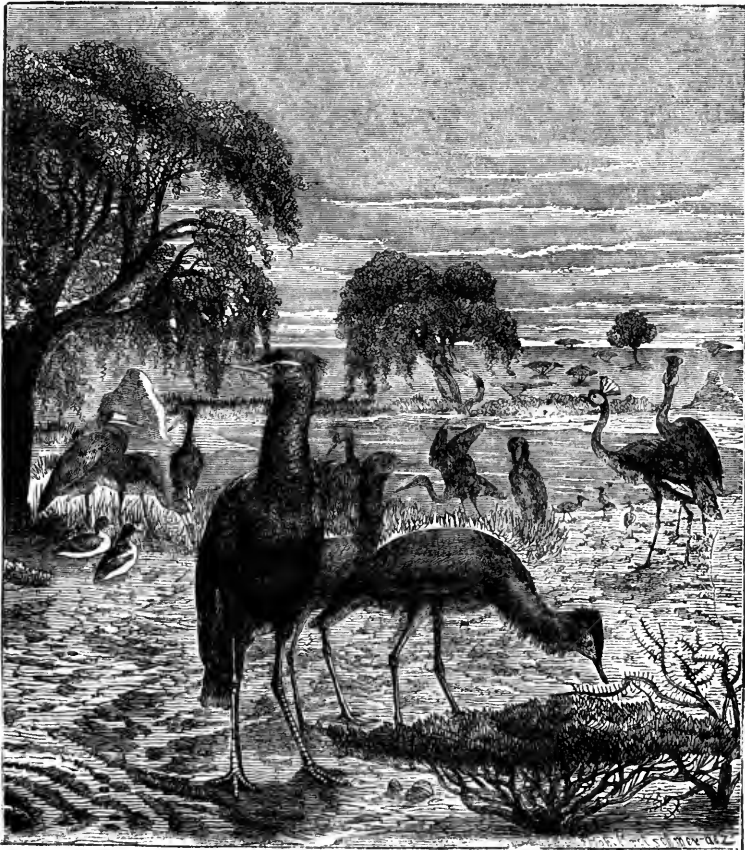
This mountain of coal is calculated to comprise 180,000,000 tons! The world may be easy about its fuel for awhile, when we learn that this vast supply is but as a point amid the coal basins of the States. West of Ohio Valley and the Mississippi River are other coal measures, all bituminous, whereas those in the Pennsylvanian territory are altogether anthracite. The whole country is a concealed coal-field about Mauch Chunk; one county is called Carbon—an appropriate cognomen for land just veiling such stores of fuel. The Lehigh company possesses 6000 acres, each acre covering 30,000 tons of coal. Up to 1854 they had unearthed 4,000,000 of tons.

Another great coal-cellar of the States lies in the Swanton Valley, deep between two spurs of the Alleghanies. Here the mighty twin powers, iron and coal, lie side by side in strata. The whole town of Swanton—called after its founder, who yet lives and rules—is built upon a rock of coal; so that the vaults and basement stores of the houses are scooped from it. A great rail-mill, turning out 12,000 tons of rails annually, is worked by the aforesaid coal, in a spot where living men remember only a few peasants' huts

BIRD LIFE IN AFRICA.

THE ornithology of Africa presents a close analogy in many of its species to that of Europe and South Asia. Thus, on its northern coasts there is scarcely a single species to be found which does not also occur in the other countries bordering on the Mediterranean.

The large messenger or secretary bird, which preys upon serpents and other reptiles, is one of the most remarkable African birds. It is common near the Cape, and is not seldom domesticated. Of gallinaceous fowls, adapted to the poultry-yard, Africa possesses but a single genus, the guinea-hens, which, however, are found in no other



part of the world. These birds, of which there are three or four distinct species, go in large flocks of 400 or 500, and are most frequently found among underwood in the vicinity of ponds and rivers. There are, besides, many species of partridges and quails in different parts of Africa. Water-fowl of various species are also abundant on

the lakes and rivers, as are likewise various species of owls, falcons, and vultures, the latter of which are highly useful in consuming the offal and carrion, which might otherwise taint the air and produce disease.

Among the smaller birds of Africa are many species remarkable for the gaudiness and brilliancy of their plumage, or the

singularity of their manners and economy. Of the former kind may be mentioned the sunbirds, the lamprotorius, the bee-eaters, the rollers, the plantain-eaters, the parrots, the halcyons, and numerous smaller birds that swarm in the forests. Of the latter kind it will be sufficient to mention the honey cuckoo (*cuculus indicator*).

What can give us a prettier idea of the abundance of animal life in Central Africa than the following picture, sketched by Livingstone. He writes: "An hour at the masthead unfolds novel views of life in an African marsh. Near the edge and on the branches of some favourite tree, rest scores of plotuses and cormorants, which stretch their snake-like necks, and in mute amazement turn one eye and then another towards the approaching monster. By-and-by the timid ones begin to fly off or take headers into the stream; but a few of the bolder or more composed remain, only taking the precaution to spread their wings ready for instant flight. The pretty ardetta, of a light yellow colour when at rest, but seemingly of a pure white when flying, takes wing and sweeps across the green grass in large numbers, often showing us where buffaloes and elephants are by perching on their backs. Flocks of ducks, of which the kind called *soriri*, being night-feeders, meditate quietly by the small lagoons until startled by the noise of the steam machinery. Pelicans glide over the water catching fish, while the swans and large herons peer intently into the pools. The large black and white spur-winged goose springs up, and circles round, to find out what the disturbance is, and then settles down again with a splash. Charming little red and yellow weavers remind one of butterflies as they fly in and out of the tall grass, or hang to the mouths of their pendent nests, chattering briskly to their mates within."

"The feathered race (says Cameron) is very numerous in Central Africa. The most common of the birds which we saw were fish-eagles, bustards, kites, vultures, white-necked crows, turtledoves, ortolans, saddle-billed storks on the Gombe, the Mpokwa,

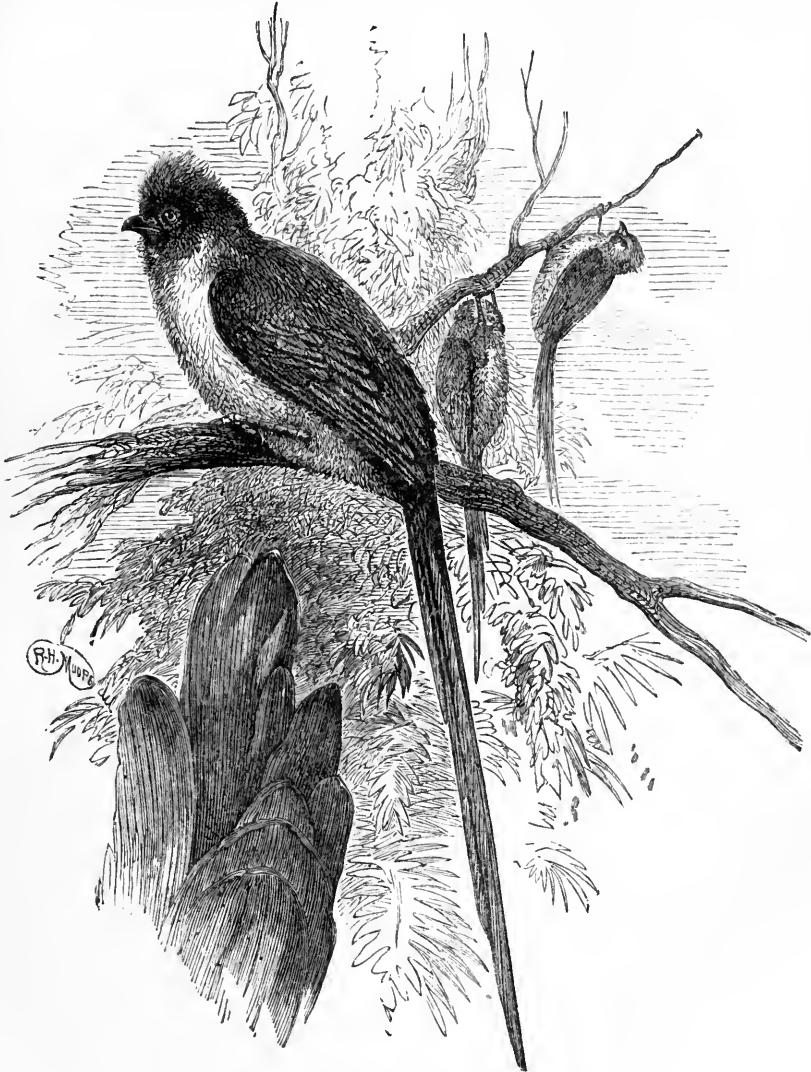
and the Ringufu. The *ibis nigra*, the *ibis religiosa*, toucans, wild geese (armed with spurs on their wings), wild ducks, black Madagascar ducks, and gulls on the Tanganyika; paddybirds, thrushes, hammer-headed storks, pelicans, lead-coloured and tuft-headed cranes, divers, kingfishers, and Egyptian geese, eared grebes, terns, guinea-fowl, quail, ptarmigan, and florican. I also saw some ostriches in Ugogo, swans on Lake Ugombo, snipe and wagtails on the Tanganyika, near the Rusizi River, besides great and little owls, bats, barbets, and the balæniceps and sandpipers. Others which I recognised were hoopoes, parrots, jays, wrens, red-wings, golden fly-catchers, and the little egrets. This, as you may see, is far too long a list to enter into any description of the several species."

Amongst the natural history specimens brought to England by Lieutenant Cameron were a marabou stork—the largest bird of the adjutant species yet imported—and two very rare birds known as colies. The chestnut-backed coly was brought from the river Dande, about forty miles north of St. Paul de Loanda. The most formidable animal presented by Lieutenant Cameron is an ape of great height and size, known as a rib-nosed mandril. There are two yellow baboons, one sooty mangabey, an African cat, a curiously spotted Servaline cat, an Angola vulture, a Bandea ichneumon, and a Monteiro galago.

While in company with Livingstone, the now celebrated Stanley made a voyage of exploration. Some of his descriptions of natural objects are very graphic and interesting. He says: "We encamped under a banyan tree. Our surroundings were the now light-grey waters of the Tanganyika, an amphitheatrical range of hills, and the village of Niasanga, situated at the mouth of the rivulet Niasanga, with its grove of palms, thicket of plantains, and plots of grain, and cassava fields. Near our tent were about half a dozen canoes, large and small, belonging to the villagers. Our tent door fronted the glorious expanse of fresh water, inviting the breeze and the views of distant

Ugoma and Ukaramba, and the island of Murimu, whose ridges appeared of a deep blue colour. At our feet were the clean and well-washed pebbles, borne upward into tiny lines and heaps by the restless surf. A search amongst these would reveal to us

the material of the mountain heaps which rose behind and on our right and left. There was schist, conglomerate sandstone, a hard white clay, an ochreish clay containing much iron, polished quartz, etc. Looking out of our tent, we could see a line on



THE CHESTNUT-BACKED COLLY.

each side of us of thick tall reeds, which formed something like a hedge between the beach and the cultivated area around Niasanga.

Among birds seen here, the most noted were the merry wagtails, which are regarded

as good omens and messengers of peace by the natives, and any harm done unto them is quickly resented. The other birds were crows, turtle-doves, fish-hawks, kingfishers, ibis, flocks of Whydah birds, geese, darters, paddybirds, kites, and eagles."

THE ICE HARVEST.



Ice and frozen snow were known as luxuries as far back as history records, the latter being mostly in use in the East. The mode of gathering it in winter, and transporting it for use in summer, and the method of preserving it in those intensely hot climates, was truly primitive, and frequently involved great labour and cost. In many portions of Asia the snow was gathered in sacks, far up in the mountains, and transported to the principal cities on the backs of mules, there preserved in cisterns sunk in the earth, and packed carefully between layers of straw. This method still prevails in some sections.

But up to the commencement of the present century, in those climates where the temperature never reaches the freezing point, ice was a luxury that few beyond the wealthiest could indulge in. In India, as also among the ancient Greeks and Romans, artificial ice was produced in small quantities, and within the last half-century successful experiments in its manufacture have been made both in this country and Europe.

The natural production, however, of our northern climates, together with the great facility for transportation, has almost entirely superseded the use of this artificial movement. It is astonishing to what an extent an article, once regarded as a simple luxury in non-producing countries, and in the northern latitudes as an article of no computed practical value, has become recognised in the commerce of the world.

One hardly realizes that the frozen lakes and rivers of the North furnish labour for thousands who would otherwise be unemployed during the greater portion of the winter months; that the ice trade employs millions of capital; that in the revenue to

the carrying trade of the United States, both foreign and coastwise, it ranks next to cotton and grain, and frequently exceeds the latter; that the universal practical use to which it is applied in the preservation of meats, fruits, and vegetables, has, within the past thirty years, produced an entire revolution in the system of domestic economy, to say nothing of the blessings it has brought to suffering humanity in our hospitals, and in our pestilence-stricken cities.

The transportation of ice by sea was not thought of until the commencement of the present century. The world is indebted for the beneficent results that has followed from the introduction of the ice trade, to Frederick Tudor, a wealthy and eccentric citizen of Massachusetts, well known seventy-five years ago for his extensive salt-works at Nahant.

In 1805, the yellow fever raged through the West India islands, the towns and cities were decimated, and the officers and crews of the European fleets were almost entirely swept off by the disease. The need of ice was very greatly felt throughout the islands. In the winter of that year, Mr. Tudor cut from a small pond, situated on a plantation of his own in Saugus, some two or three hundred tons of ice, hauled it on teams to Charlestown, loaded a portion of it into the brig *Favourite*, and sailed with it to the island of Martinique. The venture was regarded by his friends as a wild and visionary one, and he suffered nearly as much ridicule as his contemporary eccentricity "Lord Timothy Dexter" did when he shipped the warming-pans; but one of Mr. Tudor's prominent points of character, and one exemplified in nearly every act of his long and useful life, was an utter contempt for other people's opinions; he never asked advice of any one, and always turned his back upon all that was offered. The strength of his purpose was generally mea-

sured by the amount of opposition he encountered. To those who were acquainted with him, when in one of his pleasant moods, he would often delight to rehearse his early experience. There was nothing of fancy or mere speculation that induced him to embark in this experiment. He had made the subject a study, and the results of his theories effectually vindicated their soundness.

The first experiment proved a failure in a pecuniary point of view, as Mr. Tudor himself predicted, but it satisfied him as to the future, when he should have had time to work out the problems presented by the experiment.

The English Government was the first to appreciate the advantages likely to accrue to its colonists from the introduction of ice; and ten years after Mr. Tudor's first shipment, or shortly after the close of the war of 1812, he received and accepted overtures that were eminently favourable; the first was the grant of a monopoly of the trade upon such conditions that they were readily acceded to; the second was the release of certain port dues (then very heavy) to all ships bringing ice.

The island of Jamaica was then in the zenith of its wealth and commercial prosperity, and the richest colonial possession of Great Britain. Mr. Tudor established his ice-houses at Kingston, the commercial capital of the island. This was the first prominent and *permanent* point,—although this distinction has been accorded by some to Havana, and up to the time of emancipation the trade was quite brisk. Mr. Tudor also secured the monopoly of Havana, with liberal arrangements for the introduction of ice in other ports on the island of Cuba. The Tudor Company still retain the monopoly of Havana and the island of Jamaica. All other ports in the West Indies are practically open to competition. Of these the principal are, St. Thomas, Martinique, Barbadoes, Trinidad, Demerara (on the main), Cienfuegos, Santiago de Cuba, Manzanillo. The ice supplied to these ports is shipped exclusively from Boston.

Next in order after the West India ports comes the introduction of ice into our domestic ports by Mr. Tudor. The first cargo was shipped to Charleston, South Carolina, then the most important commercial port in the Southern States, in the year 1817.

In 1818 Mr. Tudor established a branch of the trade in Savannah, then, as for years afterward, a rival of Charleston. In 1820 he established ice-houses in New Orleans, which city, thirty years later, became the largest consuming city in the United States, south of Philadelphia.

It is a singular fact that the bulk of ice consumed was in foreign and southern domestic ports. This, however, may be accounted for in this way: before the introduction of Croton in New York, and Cochituate in Boston, the deep wells in both cities answered the double purpose of supplying cool spring water for drink, and as reservoirs for keeping meats, butter, milk, etc., cool in summer. It is not necessary that one should be very old to remember when we did not have ice chests in our markets, and refrigerators in our hotels and private residences. The dairyman who brought his butter and milk to market, and the farmer and butcher who slaughtered his beef and mutton during the hottest of the summer months, had his little ice-house, or cellar, containing from ten to fifty tons, which answered every purpose. Now there are delivered and consumed in New York city alone, during the winter months, more tons of ice than were cut, shipped, and consumed, in the United States in a twelve-month, thirty years ago.

In May, 1833, Mr. Tudor, at the request of English and American merchants resident in Calcutta, sent a small cargo of about 200 tons to that port. A Calcutta voyage in those days involved about six months for the passage out. The result, like that of his first shipment to the West Indies, was not a pecuniary success, but it proved that ice brought twenty thousand miles could, with all the attendant waste and losses, successfully compete in prices with that prepared by the natives. The result was

the establishment of a trade which has steadily increased in volume and importance, and which enables Boston to hold the key to the rich and extensive commerce between Calcutta and the United States.

In 1834, Mr. Tudor extended his trade in another direction, and sent a cargo to Rio Janeiro. Up to 1836, Mr. Tudor was the ice king of the world. At this remove of time we can easily figure up results, but words are inadequate when one attempts to do justice to the memory of this wonderful man, whose genius and ability have opened up such blessings to the race. He saw the conception of his brain take form and shape; he nursed it, and watched over it through trials and obstacles that would have disheartened one less confident in his own resources; he lived to see it at its full maturity, a giant among men and nations. He had succeeded, but this success did not narrow him, and he was willing, if not gratified, in seeing others spring up to share in and increase the trade he had laboured so diligently to build up.

In 1842, certain intimations were received from parties in London, which induced a shipment of Boston ice to that city.

Previous to this the aristocracy and the London clubs had depended for their ice upon small shallow reservoirs or wells, where the water was let in periodically and frozen. These, with the exception of a comparatively large well-shaped reservoir on the summit of Highgate Hill, constituted all the resources of London in that respect.

At that date fancy drinks were almost unheard of in the clubs, taverns, and gin palaces of London. Mr. Hittinger conceived the idea of introducing these, to show to what extent ice was used in "the States" for this purpose. He therefore secured the services of several bar-keepers, whom he had initiated into the mysteries of mixing juleps, smashes, cocktails, and other drinks known only in Yankeeland. His experience, as he relates it himself, is very amusing,—

"I went out in the steamer, so as to make arrangements for the arrival of the bark and

cargo, delivered my letters, talked with parties, and felt perfectly sure that I had struck a vein. In due time the *Sharon*, having made a good passage, arrived in the Thames. The thing had been talked over so much, that the cargo of Boston ice was as well advertised as it could have been in the columns of the *Times*. But, after all, it appeared to them a strange fish that no one dared to touch. My feelings were just about the temperature of my ice, and wasting as rapidly. At last, I was introduced to the Chairman or President of the Fishmongers' Association, an association which I was not long in discovering had the merit of wealth, if not of social position. He was sociable, and seemed to comprehend my position if I didn't *his*. Matters were soon arranged; a magnificent hall or saloon had been secured; I ascertained that my bar-keepers, through constant drill, had attained the correct sleight of hand in mixing the drinks. The hour arrived. The hall was long and brilliantly lighted. After the company was seated, the chairman introduced me and the subject matter of the evening's discussion. Now, thought I, I am all right. At a given signal the well-trained waiters appeared, laden with the different drinks. The effect was gorgeous, and I expected an ovation that no Yankee had ever had. But, alas! the first sounds that broke the silence were, 'I say—aw, waitaw, a little 'ot wataw, if you please; I prefer it 'alf 'n' 'alf.' I made a dead rush for the door, next day settled my bills in London, took the train for Liverpool, and the steamer for Boston, and counted up a clear loss of 1,200 dollars."

Boston, from its commercial position, as well as its close proximity by rail to all the principal points of production, must be the advantageous port for shipment. An order for a cargo of ice from that port can be filled at a few hours' notice. It is seldom, if ever, without the requisite tonnage; and the appointment of the railroads bringing the ice to East Boston and Charlestown are so perfect, that from one hundred to five hundred cars can be placed at once.

But the ice trade is to-day in its infancy ; every year it is attracting more attention. It must soon outgrow the means of individual enterprise, and powerful corporations must follow. Steam-ships, with air-tight compartments and built for great speed, must take the place of sailing ships, the saving by which, in the one item of waste, would suffice to build such steamers. Again, as the new ports of the East are being opened up to American commerce, the Pacific coast will have to supply the ice for India, China, Japan, etc. Already parties are prospecting for that region, and it would not be surprising to see, before the close of another decade, spacious ice-houses established in Alaska, Oregon, and California.

Let us now see what modern improvements have effected in reducing the cutting, housing, and shipping of ice to a system.

A little more than forty years ago, Mr. Tudor employed as his foreman Mr. Nathaniel Wyeth, of Cambridge, a man of remarkable ability. Up to this time (no reliable data are at hand to fix the year) ice was housed in subterranean vaults, generally excavated on the slope of the bank and removed some distance from the shores of the pond. Mr. Wyeth conceived the idea of erecting buildings without cellars and handy to the shore. These buildings were of wood, *battened* from the base, and were double-walled, the space between the inner and outer being filled with tan or sawdust. These were capable of holding from three to ten thousand tons each.

The next progressive move was in the direction of cutting. When the entire crop hardly exceeded five thousand tons per annum, the original method of scraping the pond answered well enough ; so did the method of "shaving" the ice and sawing it into blocks. The scraper was a rudely constructed machine moved by hand ; the shaving off of the porous or snow ice was done with broad axes ; the cutting was done by means of a common cross-cut saw, one handle being taken off. One can imagine the laborious work thus entailed.

Mr. Wyeth at once put his ingenuity to

work and produced the tools that are now in use throughout the country, and which have reduced the cost of cutting to a mere nominal figure. Under the old process, one season would not suffice to secure a year's supply. Now, the cutting and housing seldom occupy more than three weeks, and the average daily work by one concern of housing six thousand tons is not considered remarkable.

It is seldom that clear ice is secured, that is, ice without a fall of snow upon it. With the modern improvements, this coating of snow is not regarded as detrimental. In fact, the thin layer of snow ice is regarded as a preservative of the clear ice.

As soon as the pond is completely closed, the ice, with the atmosphere at a temperature of ten degrees above zero, forms very rapidly. If, after it has attained the thickness of say three or four inches, capable of bearing a man, a fall of two or three inches of snow follows, then the workmen begin to "sink the pond," as it is termed. This is done by cutting holes an inch or two in diameter, and at three or four feet apart, thus admitting the water to the surface and submerging the snow, which forms the snow ice. With a steady temperature of ten degrees above zero for a week or ten days, the ice will have formed to the desirable thickness, say an average thickness of fifteen inches. We say average, because on many ponds—Fresh Pond, for instance, which is fed by warm springs—the freezing differs. The thickness is ascertained by boring holes with a two-inch auger. If, after the ice has formed sufficiently to bear horses, snow falls, then the scraping process begins, and continues with each fall of snow till the ice is thick enough to cut.

A space on the pond, say six hundred feet in width, is marked out and the snow is scraped from either side toward the centre, forming what is called "the dump." Some seasons these dumps will rise to a great height, and then, through their immense weight, sink to a level. The process of scraping the snow into "dumps" is not only expensive, but wastes a great deal of

ice, as only that cleared off can be cut. When the ice is twelve inches thick it will yield about a thousand tons to the acre; but so much is wasted by scraping snow, high winds, and various other causes, that it is only in exceptionally "good years" that more than half the average of a pond can be cut and stored.

After the snow is scraped off, the lining of the pond, so called, begins. This is done by taking two sights as in common railroad engineering. The targets are set, representing the line between two supposed points, say A and B. A straight edge is then run by means of a common plank between the points A and B, then striking from the angle A, it runs at right angles with the line B. Only two lines are necessary, one from A to B, and the other from B to an indefinite point.

The liner proceeds with a double instrument, or what is called a "guide and marker;" the guide is a smooth-edged blade that runs in the groove made by the square edge; the marker is a part of the same instrument, and runs over the grooved lines laid out with the cutter. As soon as the machine reaches the objective point, it is turned over by an ingenious arrangement, so that returning, the guide runs in the freshly cut groove, and the marker cuts another groove forty-four inches distant. In this way the machine goes over the whole field, running one way, the last groove it cuts forming the boundary of the second side; then, commencing on this boundary line, it runs at right angles with the first, and goes over the entire field, cutting the ice into blocks of the required dimensions. The marker cuts a groove two inches in depth. Following the marker come the cutters or ploughs with sharp teeth measuring from two inches in length to ten or twelve, and used according to the thickness of the ice. Then comes the snow-ice plane, which shaves off the porous or snow ice, its first being determined by auger-boring how many inches of snow ice there are. The ice is now ready for gathering. It is broken off into broad rafts, then sawed into lesser

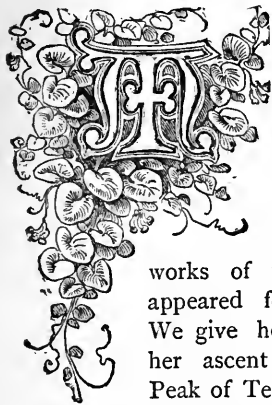
ones, then barred off in sections and floated into the canal. The calking operation consists in filling the groove lines or interstices with ice chips to prevent the water from entering and freezing; this is only necessary in very cold weather. The rafts or sheets of cakes are generally thirty cakes long by twelve wide, frequently longer. The ends have to be sawed, but every twelfth groove running lengthwise of the raft or sheet is cut deeper than the other, so that one or two men can, with one motion of the bar, separate it into strips ready for the elevator canal.

As the ice enters upon the van it is cut into single cakes of forty-four inches square. The process of elevating the ice has been reduced to almost scientific perfection. It is done by means of an endless chain fitted with buckets, and the hoisting power is a steam-engine. The ice-houses contain from three to five vaults or bins, corresponding to the several storeys in a warehouse. A single range of buildings will contain five or more. The elevator is arranged so that one flat or storey containing these five bins or vaults can be filled simultaneously; that is, as the ice leaves the elevator and is passed off on the wooden tramway of the platform, a man stands at the entrance of each vault to turn the cakes of ice in, the first cake from the elevator going to the farthest opening, and then in regular rotation till the first or lower flat in the range is filled. When the blocks are taken from the houses and loaded on board cars for shipment, they are reduced to twenty-two inches by a similar process of grooving and burring.

None but the most experienced workmen are employed in storing the ice, as this requires a quick eye, a steady hand, and good judgment.

As each flat or storey is completed, the openings at either end are securely and tightly closed, and when the whole building is filled up to the bed-plate, the space between that and the hip of the roof is filled with hay, thus providing a sure protection against waste by shrinkage, which seldom exceeds one foot during the season.

ASCENT OF THE PEAK OF TENERIFFE.



MR. BRASSEY'S account of an eleven months' cruise in the yacht *Sunbeam* is one of the most interesting works of travel that has appeared for many years. We give her description of her ascent of the famous Peak of Teneriffe :—

"We all rose early, and were full of excitement to catch the first glimpse of the famous Peak of Teneriffe. There was a nice breeze from the north-east, the true trade wind, we hope, which ought to carry us down nearly to the line. The morning being rather hazy, it was quite ten o'clock before we saw the Peak towering above the clouds, right ahead.

As we approached, it appeared less perpendicular than we had expected, or than it is generally represented in pictures. The other mountains too, in the centre of the island, from the midst of which it rises, are so very lofty that, in spite of its conical sugar-loaf top, it is difficult at first to realize that the Peak is 12,180 feet high. We dropped anchor under its shadow in the harbour of Orotava in preference to the capital Santa Cruz, both on account of its being healthier, and also in order to be nearer to the Peak, which we wished to ascend. The heat having made the rest of our party rather lazy, Captain Lecky and I volunteered to go on shore to see the Vice-Consul, Mr. Goodall, and try to make arrangements for our expedition. It was only 2 p.m., and very hot work, walking through the deserted streets; but luckily we had not far to go, and the house was nice and cool when we got there. Mr. Goodall sent off at once for a carriage, despatching a messenger also to the

mountains for horses and guides, which there was some difficulty in obtaining at such short notice. Having organised the expedition, we re-embarked to dine on board the yacht, and I went to bed at seven, to be called again, however, at half-past ten o'clock. After a light supper, we landed and went to the Vice-Consul's, arriving there exactly at midnight. But no horses were forthcoming, so we lay down on our rugs in the patio, and endeavoured to sleep, as we knew we should require all our strength for the expedition before us.

There were sundry false alarms of a start, as the horses arrived by ones and twos from the neighbouring villages, accompanied by their respective owners. By two o'clock all our steeds, twelve in number, had assembled, and in another quarter of an hour we were leaving the town by a steep stony path, bordered by low walls. There was no moon; for the first two hours it was very dark. At the end of that time we could see the first glimmer of dawn, and were shortly afterwards able to distinguish each other and to observe the beautiful view which lay below us as we wended our way up and up between small patches of cultivation. Soon we climbed above the clouds, which presented a most curious appearance as we looked down upon them.

The stratus through which we had passed was so dense and so white that it looked exactly like an enormous glacier, covered with fresh-fallen snow, extending for miles and miles; while the projecting tops of the other Canary Islands appeared only like great solitary rocks.

The sun had already become very oppressive, and at half-past seven we stopped to breakfast and to water the horses. Half-past eight found us in the saddle again, and we commenced to tra-

verse a dreary plain of yellowish-white pumice stone, interspersed with huge blocks of obsidian, thrown from the mouth of the volcano. At first the monotony of the scene was relieved by large bushes of the yellow broom in full flower, and still larger bushes of beautiful *Retama blanca*, quite covered with lovely white bloom, scenting the air with its delicious fragrance, and resembling huge tufts of feathers, eight or nine feet high. As we proceeded, however, we left all trace of vegetation behind us. It was like the Great Sahara. On every side a vast expanse of yellow pumice-stone sand spread around us, an occasional block of rock sticking up here and there, and looking as if it had indeed been fused in a mighty furnace. By half-past ten we reached the 'Estancia de los Ingleses,' 9,639 feet above the level of the sea, where the baggage and some of the horses had to be left behind, the saddles being transferred to mules for the very steep climb before us. After a drink of water all round, we started again, and commenced the ascent of the almost perpendicular stream of lava and stone, which forms the only practicable route to the top. Our poor beasts were only able to go a few paces at a time without stopping to regain their breath. The loose ashes and lava fortunately gave them a good foothold, or it would have been quite impossible for them to get along at all. One was only encouraged to proceed by sight of one's friends above looking like flies clinging to the face of the wall. The road, if such it can be called, ran in zigzags, each of which was about the length of two horses, so that we were in turns one above another. There were a few slips and slides and tumbles, but no important casualties; and in about an hour and a half we had reached the 'Alta Vista,' a tiny plateau, where the horses were to be left.

The expedition so far had been such a fatiguing one, and the heat was so great that the children and I decided to remain here, and to let the gentlemen proceed alone to the summit of the Peak. We

tried to find some shade, but the sun was so immediately above us that this was almost an impossibility. However, we managed to squeeze ourselves under some slightly overhanging rocks, and I took some photographs while the children slept. The guides soon returned with water barrels full of ice, procured from a cavern above, where there is a stream of water constantly running; and nothing could have been more grateful and refreshing.

It was more than three hours before Tom and Captain Lecky re-appeared, to be soon followed by the rest of the party. Whilst they rested and refreshed themselves with ice, they described the ascent as fatiguing in the extreme, in fact, almost an impossibility for a lady. First, they had scrambled over huge blocks of rough lava to the tiny plain of the Rambleta, 11,466 feet above the level of the sea, after which they had to climb up the cone itself, 530 feet in height, and sloping at an angle of 44 degrees. It is composed of ashes and calcined chalk, into which their feet sank, while, for every two steps they made forwards and upwards, they slipped one backwards. But those who reached the top were rewarded for their exertions by a glorious view, and by the wonderful appearance of the summit of the Peak.

The ground beneath their feet was hot, while sulphurous vapours and smoke issued from various small fissures around them, though there has been no actual eruption from this crater of the volcano since 1704. They brought down with them a beautiful piece of calcined chalk, covered with crystals of sulphur and arsenic and some other specimens. Parched and dry as the ground looked where I was resting, a few grains of barley dropped by mules on the occasion of a previous visit, had taken root and had grown up into ear; and there were also a few roots of a sort of dog-violet, showing its delicate lavender-coloured flowers 11,000 feet above the sea, and far beyond the level of any other vegetation. It was impossible to ride down to the spot where we had left the baggage

animals, and descent was consequently very fatiguing, and even painful. At every step our feet sank into a mass of loose scoriæ and ashes ; so we went slipping, sliding, and stumbling along, sometimes running against a rock, and sometimes nearly pitching forward on our faces. All this too beneath a blazing sun, with the thermometer at 78°, and not a vestige of shade. At last Tom and I reached the bottom, where after partaking of luncheon and draughts of quinine, we lay down under the shadow of a great rock to recruit our weary frames.

Refreshed by our meal, we started at six o'clock on our return journey, and went down a good deal faster than we came up. Before the end of the pumicestone or Retama plains had been reached, it was nearly dark. Sundry small accidents occurring to stirrup leathers, bridles, and girths—for the saddlery was not of the best description—delayed us slightly, and Tom, Dr. Potter, Allnutt, and the guide having got on ahead, we soon lost sight of them. After an interval of uncertainty, the other guides confessed that they did not know the way back in the dark. This was not pleasant, for the roads were terrible, and during the whole of our journey up from the port to the Peak, we had met only four people in all,—two goat-herds with their flocks, and two 'neveros' bringing down ice to the town. There was therefore not much chance of gaining information from any one on our way down. We wandered about among low bushes, down watercourses, and over rocks for a long time. Horns were blown, and other means of attracting attention were tried ; first one and then another of the party, meanwhile, coming more or less to grief. My good little horse fell down three times, though we did not part company ; and once he went up a steep bank by mistake, instead of going down a very nasty watercourse, which I did not wonder at his objecting to. I managed to jump off in time, and so no harm was done ; but it was rather anxious work.

About ten o'clock we saw a light in the

distance and with much shouting woke up the inhabitants of the cottage whence it proceeded, promising to reward them liberally if they would only show us our way back. Three of them consented to do this, and provided themselves accordingly with pine-torches, wrapped round with bracken and leaves. One, a very fine man dressed in white, with his arm extended above his head, bearing the light, led the way ; another walked in front of my horse, while the third brought up the rear. They conducted us down the most frightfully steep paths until we had descended beneath the clouds, when the light from our torches threw our shadows in gigantic form upon the mists above, reminding us of the legend of the "Spectre of the Brocken." At last the torches began to go out, one by one ; and just as the last light was expiring we arrived at a small village, where we of course found that everybody was asleep. After some delay, during which Mabelle and I were so tired that we lay down in the street to rest, more torches were procured and a fresh guide, who led into the comparatively good path toward Puerto Orotava. Finally, half an hour after midnight, we arrived at the house of the Vice Consul, who had provided refreshments for us, and his nephew was still very kindly sitting up awaiting our return. But we were too tired to do anything but go straight on board the yacht, where, after some supper and champagne, we were indeed glad to retire to our berths. This was at 3.30 a.m., exactly twenty-nine hours since we had been called on Friday night.

It is certainly too long an expedition to be performed in one day, tents should be taken, and arrangements made for camping out for one, if not two nights ; but, in the case of such a large party this would have been a great business, as everything must be carried to so great a height, up such steep places, and over such bad roads. Still, there are so many objects and places of interest, not only on, but around the Peak, that it is a pity to see them only when hurried and fatigued."

HUNTING THE MOOSE.



HERE are three modes of hunting the moose, termed still-hunting, fire-hunting, and calling. There was another mode, which legislation has in a great measure suppressed. I refer to the wholesale slaughter of the animals when the deep-lying snows of a protracted winter imprisons them in their yards, and renders them only a too easy prey to

the unprincipled butchers who slay them for the sake of their skins. As the snow gets deep, many deer congregate in the depths of the forest, and keep a place trodden down, which grows larger as they tramp down the snow in search of food. In time this refuge becomes a sort of "yard," surrounded by unbroken snowbanks. The hunters then make their way to this retreat on snow-shoes, and from the top of the banks pick off the deer at leisure with their rifles, and haul them away to market, until the inclosure is pretty well emptied. This is one of the surest methods of exterminating the deer.

To be successful in still-hunting, or creeping upon the moose, necessitates the aid of a skilful Indian guide; very few, if any, white men ever attain the marvellous precision with which an Indian, to whom the pathless forest is an open book which he reads as he runs, will track to its death an animal so exceedingly sensitive to the approach of man. This gift, or instinct, seems born with the Indian, and is practised from his early childhood. It is not uncommon to find little Indian boys in the forest several miles from the wigwam, armed with a bow and arrows, the latter having old knife-blades inserted in the heads.

The finely-modulated voice of the Indian is especially adapted to imitate the different calls and cries of the denizens of the forest, and with a trumpet of birch bark, he will imitate to the life the plaintive low of the cow-moose, and the responsive bellow of the

bull. Early morning, twilight, or moonlight are all favourable to this manner of hunting. The Indian, having selected a favourable position for his purpose, generally on the margin of a lake, heath, or bog, where he can readily conceal himself, puts his birchen trumpet to his mouth, and gives the call of the cow-moose, in a manner so startling and truthful that only the educated ear of an Indian could detect the counterfeit. If the call is successful, presently the responsive bull-moose is heard crashing through the forest, uttering the blood-curdling bellow or roar, and rattling his horns against the trees in challenge to all rivals, as he comes to the death which awaits him. Should the imitation be poor, the bull will either not respond at all, or approach in a stealthy manner and retire on discovery of the cheat. Moose-calling is seldom attempted by white men, the gift of calling with success being rare even among the Indians.

Fire-hunting, or hunting by torchlight, is practised by exhibiting a bright light, formed by burning bunches of birch bark, in places known to be frequented by moose. The brilliant light seems to fascinate the animal, and he will readily approach within range of the rifle. The torch placed in the bow of a canoe is also used as a lure on a lake or river, but is attended with considerable danger, as a wounded, or enraged moose, will not unfrequently upset the canoe.

Still-hunting can be practised in September, and all through the early winter months, until the snow becomes so deep that it would be a sin to molest the poor animals. The months of September and October are charming months for camping out, and the moose are then in fine condition, and great skill and endurance are called for on the part of the hunter. The moose possesses a vast amount of pluck, and when once started on his long, swinging trot, his legs seem tireless, and he will stride over boulders and windfalls at a pace which soon distances his pursuers.



A MONUMENT WITH A STORY.

ANY times (says an American writer) have I heard English people say, as if they really pitied us: "Your country has no monuments yet; but then she is so young — only two hundred years old — and, of course, cannot be expected to have either monuments or a history." Yet we have some monuments, and a chapter or two of history, that the mother-country does not too fondly or frequently remember. But I am not going to write now of the Bunker Hill monument, nor of the achievement at New Orleans, nor of the surrender of Lord Cornwallis at Yorktown. I want to tell of another land nearer its infancy than ours, with a history scarcely three-quarters of a century old, but with one monument, at least, that is well worth seeing, and that cannot be thought of without emotions of loving admiration and reverence. The memorial is of bronze, and tells a story of privation and suffering, but of glorious heroism, and victory even in death.

Everybody knows something of the great island, Australia, the largest in the world, reckoned by some geographers as the fifth continent. I might almost have said its age is less than one-quarter of a century, instead of three. It was visited by the great adventurer, William Dampier, about the year 1690, and again, eighty years after, by Cook, on his first voyage around the world. It is only within the present generation that we have come to know it well. England's penal colony there, and Cook's stories of the marvellous beauty and fertility of the land, were never wholly forgotten; but almost nothing was done in the way of exploration, especially of the interior, and the world remained ignorant

of both its extent and its resources until 1860, in August of which year two brave-hearted young men, by name Burke and Wills, determined to find out all that they could of the unknown central regions. It is in memory of these men that Australia's first monument has been erected. Let us tell you their story.

Burke was in the prime of life, a strong, brave man, who delighted in daring and even dangerous exploits. Wills, an astronomer, was younger, and not so ardent, but prudent, wise, sagacious, and thus well fitted to be the companion of the adventurous Burke. Their object was to trace a course from south to north of Australia, and explore the interior, where hitherto no European had set foot.

Fifteen hardy adventurers were induced to form the little company; twenty-seven camels were imported from India for carrying the tents, provisions, and implements needed upon such a journey; a fifteen-months' supply of provisions were laid in, and large vessels were provided for holding ample stores of water, whenever the route should lie through arid regions.

Thus burdened with baggage and equipments, the explorers started out. Their progress was necessarily slow, but the greatest difficulty with which the leaders had to contend was a spirit of envy and discontent among their followers. This led to an entire change in Burke's plans, and perhaps also to the sad catastrophe which ended them.

Instead of keeping his men together, as at first intended, he divided the company into three squads. Assigning the command of two of these to Lieutenants Wright and Brahe, and leaving them behind at an early stage of the journey, together with most of the baggage and provisions, Burke took Wills, with two others of the most resolute of his company, and pushed boldly forward, determined to reach the northern coast, if

possible, but, at any rate not to return unless the want of water and provisions should compel them.

A place called Cooper's Creek, about the centre of the Australian continent, was to serve as a rendezvous for the entire company; one of the squads was directed to remain at this point for three months, and longer, if practicable; another squad was told to rest a while at Menindie, and then join the first; while Burke, Wills, Gray, and King were to prosecute their journey northward, do their utmost to accomplish the main object of the expedition, and return to Cooper's Creek. Had this plan been faithfully executed, all might have gone well. But hardly had Burke taken his departure when quarrels for pre-eminence broke out among the men he had left behind; then sickness and death thinned the ranks and disheartened the survivors, and they failed to carry out the programme Burke had laid down. Wright stayed at Minindie until the last of January before setting out for the rendezvous; while Brahe, who had charge of most of the provisions, instead of remaining for three months at Cooper's Creek deserted that post long before the time arranged, and left behind neither water nor provisions.

In two months Burke and his companions reached the borders of the Gulf of Carpentaria, at the extreme north of the continent, having solved the problem, and found a pathway to the North Pacific. Then, worn and weary, they set out to return. Their forward march had been exhausting, as the frequent attacks of bands of savage natives and the many deadly serpents had made it dangerous to halt for rest either by day or night. The heat, too, was excessive, and sometimes for days together the travellers were almost without water, while but sparing use could be made of the few provisions they had been able to carry. Feeling sure of relief at Cooper's Creek, however, and jubilant at their success, the four almost starving men turned about and pressed bravely on, but they arrived only to find the post deserted, and

neither water nor provisions left to fill their pressing need.

In utter dismay they sat down to consider what could be done, when one of the party happened to see the word "dig" cut on the bark of a tree, and digging below it they found a casket containing a letter from Brahe, which showed that he had left the post that very morning, and that our travellers had arrived just *seven hours too late!*

Imagine, if you can, how terribly tantalizing was this news, and how hard it must have seemed to these heroic men, after having suffered so much, braved so many dangers, and tasted the first sweets of success, to die of starvation just at the time when they had hoped relief would be at hand,—to be so nearly saved, and to miss the certainty of rescue by only a few hours! Eagerly they searched in every direction for some trace of their comrades, and called loudly their names, but the echo of their own voices was the only answer. As a last effort for relief, they attempted to reach Mount Despair, a cattle station one hundred and fifty leagues away, but they finally gave up in complete discouragement, when one more day's march might have brought them to the summit and saved their lives.

For several weeks these brave fellows fought off their terrible fate, sometimes hoping, oftener despairing; and at last, one after another, they lay down far apart in the dreary solitude of the wilderness, to die of starvation.

All this and more was learned by Captain Howitt, who commanded an expedition of search sent out from Melbourne some nine months after the departure of Burke and his company, not a word of news having been received concerning them, and many fears being felt for the safety of the little band. On Howitt's arrival at Cooper's Creek he, too, found the word "DIG," where the four despairing men had seen it; and beneath the tree was buried, not only the paper left by Brahe, but Burke's journal, giving the details of the journey to the

coast, discoveries made, and the terrible last scenes.

At every step of Burke's pathway new objects of interest had elicited his surprise and admiration. Not only were there fertile plains and beautiful flower-dotted prairies, but lagoons of salt water, hills of red sand, and vast mounds that seemed to tell of a time when the region was thickly populated, though now it was all but untrod by man. A range of lofty mountains, discovered by Burke in the north, he called the Standish Mountains, and a lovely valley outspread at their foot he named the Land of Promise.

But, alas ! great portions of Burke's journey had to be made through rugged and barren regions destitute of water, and with nothing that could serve as food for man or beast. Driven to extremities by hunger, the pioneers devoured the venomous reptiles they killed. All their horses were killed for food, and all their camels but two. Perhaps these also went at a later day, for toward the last the records in the journal became short, and were written at long intervals.

Once the party was obliged to halt with poor Gray, and wait till he had breathed his last, when the three mourning survivors went on in silence without their comrade.

A letter from young Wills, addressed to his father, is dated June 29th. The words are few, but they are full of meaning.

"My death here, within a few hours, is certain, but my soul is calm," he wrote.

The next day he died, as was supposed by the last record ; though the precise time could not be known, as he had gone forth alone to make one more search for relief, and had met his solitary fate calmly, as a hero should. Howitt, after long search, found the remains of his friend stretched on the sand, and nearly covered with leaves.

The closing sentence in Burke's journal is dated one day earlier than young Wills's letter. It runs,—

"We have gained the shores of the ocean, but we have been aband—"

It is not, of course, known why the last word was never finished. It may have been that he felt too keenly the cruelty of his companions' desertion of him to bring himself to write the word ; or perhaps the death agony overtook him before he could finish it. At any rate, it speaks a whole crushing world of reproach to those whose disregard of duty cost their noble leader's life. It has its lessons for us all.

Burke's skeleton also was found, covered with leaves and boughs that had been placed there, it is supposed, by the pitying natives, who found the dead hero where, in bitter loneliness, he heaved his dying sigh, unflinching to the last.

Howitt wrapped the remains in the flag of his country, and left them in their resting-place. Then he returned to Melbourne, and made preparations for their removal and subsequent burial. They rest now in that beautiful city near the sea, beneath the great bronze monument. There are two figures, rather larger than life : Burke standing, Wills in a sitting posture. On the pedestal are three bas-reliefs, one showing the return to Cooper's Creek, another the death of Burke, and the third the finding of his remains. This is a fitting tribute to the memory of the brave explorers ; but a far nobler and more enduring memorial exists in the rapid growth and present prosperous condition of that vast island,—results that are largely the fruit of their labours and devotion.

King survived, but he was wasted almost to a skeleton, and it was months before he could tell the story of suffering he alone knew.



A FEMALE CRUŠOE.



ONE of the earliest travellers on the overland route, in search of the north-west passage, was Mr. Hearne, who, during the years from 1769 to 1771, made three several journeys towards the Copper Mine River, in full expectation of finding a northern ocean, the existence of which, it was inferred, would establish the fact of a sea route north of the great American continent. In those long journeys he encountered the most frightful perils and underwent astonishing hardships, not a whit less cruel than the worst of those endured by modern travellers, and he manifested unparalleled fortitude in contending against them. The third journey to some extent established the fact, the verification of which was the chief object of his expeditions, and moreover corrected some important errors in the reports of preceding explorers. But we have nothing to say on that subject here. Mr. Hearne's expeditions have long been a dead letter; and we refer to them only for the purpose of introducing an episode in his adventures which strikes us as affording, perhaps, the most remarkable instance of female resource and self-reliance ever recorded.

When Mr. Hearne, with a company of Indian guides, was travelling in the arctic circle, not far from the Lake Athapuscow, one of the guides came suddenly upon the track of a strange snow-shoe. Astonished at the sight, in a region supposed to be hundreds of miles from any human habitation, the Indians followed up the track, and after pursuing it for some distance, arrived at a small hut or cabin, formed of snow and driftwood, where they discovered a young woman sitting alone. She understood their language, and did not need much persuasion to induce her to return with them to the

traveller's tent. Here, on being interrogated, she told her story; when it came out that she was a native of the tribe of Dog-rib Indians, who were, or had been, at feud with the Athapuscan, and that at an inroad of the latter, during the summer of 1770, she had been taken prisoner and carried off to slavery. In the following summer, when the Athapusan Indians were travelling the country, she watched her opportunity, and, on arriving near the place where she was found, managed one night to give them the slip, intending to find her way back to her own people. In this, however, she was disappointed. She had been carried away in a canoe, and the twistings and windings of the river were so many and intricate, and so often intersected each other, and there were so many lakes and marshes, that she found it impossible to pursue her route. In this dilemma, instead of resigning herself to despair, she set about building a dwelling for a shelter during the winter, and having completed it, she calmly took up her abode and commenced her solitary housekeeping.

She had kept an account of all the moons that had passed; and from this it appeared that for seven months she had not seen a human face, and had subsisted in this desolate region entirely by her own unaided exertions. How had she contrived to sustain life? When asked that question, she said that when she ran away from her captors she took with her a few deer sinews. With these she made snares, and caught partridges, rabbits, and squirrels; she had also killed a few beavers and porcupines, and was not only not in want of food at the period when she was discovered, but had a tolerably good stock of provisions laid up for future use. When the snares made of the deer sinews were all worn out, she was ready with another stock manufactured with sinews drawn from the legs of the rabbits

and squirrels which had fallen victims to her cunning. But this "exemplary female" had not only well stocked her larder by the exercise of industry and forethought, but had also taken equal care of her wardrobe. From the skins of the various animals she had caught she had made up an excellent winter suit, which was not only warm and comfortable, but, according to Mr. Hearne, was put together with great taste, and exhibited no small variety of ornament. "The materials, though rude, were curiously wrought, and so judiciously arranged as to make the whole garb have a pleasing though somewhat romantic appearance." Her working implements consisted of the broken shank of an iron arrow-head, and a few inches of iron hoop roughly sharpened into a knife; and with these she had constructed not only her dress, but a pair of substantial snow shoes, and several other useful articles.

The keeping up her fire had given her most trouble. With two sulphureous stones she could, by dint of violent friction and continuous pounding, raise a few sparks so as to kindle a handful of loose fibres of wood carefully picked small; but the labour was wearisome and long; and to avoid the necessity of it, she had not suffered her fire

to be extinguished for many months. She was never idle. When fatigued with the toils of the chase, or when she was not under the necessity of hunting, she occupied herself in peeling off the thin inner bark of the willow trees with which the spot abounded, and twisting it into a species of twine. Of this sort of line she had already accumulated several hundreds of fathoms in length, and it was her intention to make of them a capacious net for fishing, as soon as the frost should break up and the streams become practicable.

Of this remarkable female, Mr Hearne in his journal, says: "She was one of the finest women I have seen in any part of North America." It would seem that his Indian guides were of the same opinion; and that, while they admired her for the comeliness of her person, they were by no means insensible of the value of her multifarious accomplishments. There was not a man among them who did not desire to have her for his wife; so, according to the custom of their tribe, they put her up to competition, and wrestled in the ring for her—the strongest of the party, after he had overthrown all the rest, having her duly assigned to him.

MEMORIES.

GOLDEN memories crowd before me
Of the happy days gone by,
Till they make the head grow dizzy,
And the heart heave many a sigh.

I recall my darling mother,
Teaching my young lips to pray,
Pressing me so fondly to her,
At the close of each bright day.

Ah! those days of careless pleasure
And those nights of gladsome glee,
Waiting at the gate, and watching
Father's coming home to see.

But, alas! a sadder memory
Rises now before my eyes:

First my father, then my mother,
Went before me to the skies.

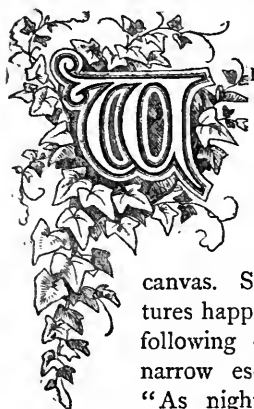
I was left a lonely orphan,
Early taught to earn my bread:
And sometimes I've grown so weary,
I've almost wished that I were dead.

But I know that God my Father
Keeps His promise still the same—
To watch o'er the lone and friendless,
Whilst shall last His glorious name.

So I must not be desponding,
I will trust and hope once more,
And wait till the heavenly summons
Calls me through the pearly door.

A. J. S.

ADVENTURE WITH A COBRA.



WHILE on an excursion to the hills near Bellary, with a large party of servants, Lady Barker with a lady friend passed two nights under canvas. Several exciting adventures happened to them. The following extract relates their narrow escape from a cobra :

"As night came on, we had chairs brought out, and sat at some distance from our encampment talking ; and, though neither of us said so, I think each felt regret in her heart that we had made this expedition at all. I remember the moon was wonderfully beautiful and bright ; so bright that I could read very small type. We tried to talk cheerfully, but the adventure of the wild-cat had impressed us much, and we began seriously to reflect upon our foolishness in undertaking such an expedition alone.

At last the time arrived for us to retire. The two ayahs were with baby, and my old dog Bessie was helping to keep guard, until I went to my charpoy, and relieved them of their charge. In addition to the cocoa-nut oil lamp, which we intended to burn all night, I insisted upon keeping a candle on a chair by my bedside to read by, for I felt strangely wakeful. Baby was very restless when I went to bed, so I sang a long lullaby to her to soothe and send her to sleep. The cocoa-nut oil lamp was burning dimly, and there was very little light in the tent when I put out my candle. The moon was going down, and, as I lay on my charpoy, quiet and silent in the stillness of the night, a feeling of indescribable dread fell upon me—a fear of I knew not what. Not a sound came to me from those around ; my friend Julia scarcely seemed to breathe, so profound was her slumber ;

Bessie was lying stretched at full-length under the table, which was in the centre of the tent, forgetting her cruel treatment by the wild-cat in happy unconsciousness. Tranquil sleep had fallen upon all the other inhabitants of the little camp, I only could not rest ; my eyes seemed strained open, staring at vacancy. I thought of all the tales I had heard of the treachery of natives ; of the fleet and stealthy movements of tigers ; my butler had come to me only the day before, with a tale of two man-eaters which were known to be somewhere within fifty miles ! I had thought little of his account at the time he told me, but now all the histories of the rapidity with which a tiger travels came back to me. I thought of Thugs, of all the horrors of the Indian Mutiny, then but lately passed, until my heart beat and throbbed with such an agony of fear that I could scarcely breathe.

While I was doubting if I should speak to Julia, or call for my ayah, or, in fact, do anything to break the spell under which I was suffering, Bessie suddenly started up and barked, and then looked towards the outer fly, used as a door, which was partly raised. I sat up in my bed and looked out ; the moon was sinking, but had not yet disappeared, and I could see outside the tent distinctly. There was nothing but the shadow of the half-raised fly ; I strained my ears, but could not catch a sound. Then Bessie raised herself from under the table, and came up close to my charpoy, barking short, sharp, complaining barks. She came quite near to me and put her paws upon the bed, and touched my cheek with her cold nose ; then, uttering a whine of entreaty, she rubbed her head upon my shoulder and made me understand that she was troubled. I caressed her, and looked again upon the moonlit scene without ; then I told her to be quiet and lie down ; I was afraid she would wake up the baby, and I

spoke crossly to her, saying there was nothing there. Still, she barked and whined. Julia awoke, and called out to her to be quiet. I said—

‘I am sure Bessie would not be so restless, and disturb us in this way, without reason. I believe there are thieves, or wild-cats, or something of the kind, near us.’

Julia listened, and answered very crossly, ‘You always think that stupid old dog cannot do wrong. You know there are plenty of the servants near, and they were ordered to be on the watch to-night; so do go to sleep.’

‘Listen!’ I pleaded. ‘I am so frightened.’

‘How can you be so childish?’ cried Julia. ‘I declare I am very glad that this is to be our last night in the tent; we won’t try it again.’

‘Oh no!’ I sighed; ‘I wish we never had.’

I tried to be still; I tried to think of other things; I spoke very sharply to my poor Bessie, for she would keep barking and snorting in a perfect fury at some unknown, unseen danger. Again, in spite of my angry words, she came to me and scratched upon the bedclothes. I looked out again; still there was nothing to be seen. I slapped her; she whined and went back to her bed under the table. All this time my little child was sleeping peacefully by my side; I kissed her closed eyelids and then determined to make a great effort to sleep myself. I turned my pillow, and laid my burning head upon the cool side; then I began the old children fashion of counting myself to sleep. It would not do: that dread, that horror, would not leave me. Poor Bessie, too, was evidently as uneasy as before; I heard her breathing hard, and snorting in a short suppressed way, now and then giving a whine of trouble and discontent. I had just resolved to brave the danger, whatever it might be, by getting up, and going to the opening of the tent to look out, when I was started by a loud snarl, followed by a sharp bark from Bessie. I

sat up and looked at her, and I saw she was staring at the ground by the side of my charpoy; the old dog’s lips were curling with rage, her back all bristling, and her eyes starting almost from her head. Leaning over the edge of my bed, I looked down at the spot on which her eyes were fixed, and I saw, in the dim light thrown by the little wick of the cocoa-nut oil lamp, something lying in coils between the chair on which the candlestick was placed, and my charpoy; I saw dusky folds moving and writhing on the ground; and almost touching my face as I stooped down, a flat head reared itself, swaying backwards and forwards with outstretched hood and forked tongue. It was a cobra! Oh, how terribly I suffered at that moment. The chill disgust, the deadly fear, the hatred, I felt for the loathsome reptile, every instant drawing its vile body nearer and nearer to me and my little child, paralysed me for an instant, and in a voice strangely calm, seeming to me, I remember, as if somebody else was speaking rather than myself, I said, ‘Julia, there really is a cobra trying to get into my bed. Scream for them to come.’

‘Do be quiet’ she murmured in a sleepy tone, ‘and go to sleep; you are dreaming: how tiresome you are!’

The hooded head was rising, the forked tongue close upon me, the sickening smell from the snake was in my nostrils. With a loud hoarse voice I shrieked, ‘Oh do, Julia, leave the tent, and send them to me.’ And I screamed one scream after the other.

Julia then sprang up, and rushed out of the tent; and I, reaching over the reptile’s head, and seizing the candlestick, which was on the chair—a heavy plated one with a tall glass shade—dashed it with all my force upon the cobra’s writhing body. The head fell, and, wriggling and twisting in a hideous manner, it glided from me. Butler, maty, and ayahs all rushed in pell-mell, with tent-poles and various other implements of destruction, and soon finished the work begun by the candlestick. Then they displayed the dead body to me with an air of much satisfaction.

I was so terribly frightened that I felt I could not stay another hour in our encampment. My nerves were so shaken that I saw snakes everywhere; and Julia was almost as anxious as I was to be off. The moon was down, and darkness upon everything. My butler, a very wise and trustworthy old man, advised me strongly to wait till daylight; he salaamed many times, and pleaded, 'If missis wait one, two hour, no danger; me and other boys staying by missis, holding lights so as missis can see, and making plenty noise, so no cobra can come. Missis going down hill in dark; plenty more danger coming.' But I was obstinate, and insisted upon continuing our march at once.

Accordingly the bandies were prepared for us to make our descent of the hill; our horses were to remain until daylight, and then to follow us, that we might afterwards proceed on horseback. One pair of our bullocks were steady, good-tempered, well-conditioned beasts, whose conduct we could be certain of; therefore, they of course were fastened to the bandy in which baby travelled. Julia was to go down the steep little hill with my darling in her bandy, while I settled to go in the smaller one with the glass, crockery, etc., and the old dog Bessie. Julia, baby, and her ayahs got into their carriage, and accompanied by some of the natives carrying torches on either side, began their downward march. The road was very steep and winding; on the one side a high bank rose above our heads, and on the other was a sharp and sudden declivity, guarded by a low wall about two feet high.

The first bandy started with its precious freight, and slowly the bullocks planted their sure feet upon the uneven ground. I watched them as long as I could see by the torchlight, and then I, too, mounted into the bandy with Bessie, and prepared to set off; but, as ill-luck would have it, my bullocks, which were not our own, but had been hired for the journey, were, what is called in Madras, bobbery bullocks—bobbery signifying of a diabolical temper, a tem-

per produced, in all probability, by the brutal treatment they too often receive. Goaded and maddened, their tails twisted off, their poor hides blistered and bleeding, perchance one day the idea of revenge has entered their dull brains, and they have suddenly become conscious of their own strength, and determine to use it against their oppressors. At any rate, from whatever cause, my bullocks were very bobbery, more so than was at all expected; for I had no sooner entered the bandy, and the driver got upon the box, than they started off as hard as they could tear. Not content with racing down the proper marked-out road, they, either owing to the darkness or from malice prepense, took a leap over the two-feet wall which formed the boundary of the road, dragging the bandy after them, and then down the rocky and steep mountain-side.

Bump, bump, went the bandy, swaying from side to side, dashing against stones and mounds of earth in its descent. I was up at the top, down on the floor, first half out of one window, then out of the other, Bessie thrown yelping on me, then I on her. Bang, crash, off came the door; then the poor driver was thrown from his seat, and, as I afterwards found, had his leg broken. I was now more entirely at the mercy of the bullocks than ever. All was darkness. I dared not, if I could, have extricated myself from the bandy: I knew not where I was, nor whither going. I heard the cries of my terrified servants above, and could see the flashes of the torches, but I was going down, down, faster and faster every instant; at last there came a fearful shock, and we stopped.

Once feeling the rapid motion was over, I gathered my poor bruised body together, and scrambled out of the damaged bandy, Bessie limping after me. My butler was descending the rugged pass, down which I had just involuntarily come, as fast as his legs and arms could bring him. Meanwhile I stood in the darkness, listening to the snorting and groaning of the prostrate bullocks, afraid to move until he arrived

with his torch. Soon the other boys, as we call them in India, found their way to our assistance ; and then we discovered that the infuriated animals had indeed only just stopped in time ; they had fallen on their knees, and their heads were almost hanging over a precipice with a drop of at least twenty feet. I had to scramble up the hill as well as I could, and gained the road

again before it was possible to descend. The bullocks were extricated from the shattered bandy, which had to be left in its perilous position for the present.

Arriving at the foot of the hill, I joined my friend Julia and my baby, whom I found in perfect safety. Thankful for our preservation, Julia and I then made a vow that we would never try a tent life again."

THE SYRIAN SHEEP.



HE manner of tending sheep in the East is very different from that practised among ourselves, and supplies many illustrations to the poetry and the parables of Holy Writ. The sheep districts consist of wide open wolds or downs, reft here and there by deep ravines, in whose sides lurk many a wild beast.

During the day the sheep roam at will over a wide extent of common pasture, only kept from encroaching on the territory of another tribe. In the evening they are gathered into folds. These folds are, in most parts of the country, the natural caves or old dwellings of the Horites, adapted for the purpose, with a low wall built outside them, as may be seen in Mount Quarantania, near Jericho ; in the glens near the lake of Galilee, and in the hill country of Judah.

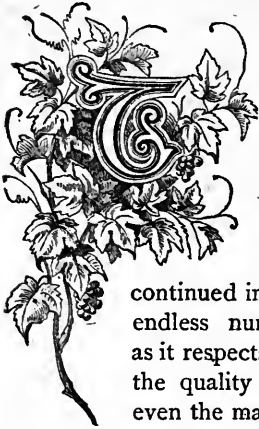
"There are two breeds of sheep," says Canon Tristram, "so far as I could judge from observation in Palestine. In the northern hills there is a breed apparently not unlike the merino, with short fine wool,

well-shaped and fine legs. The common Syrian sheep is much taller, large boned, with a broad flat tail, hornless head (excepting in the rams), and long Roman nose, such as we see represented in Italian landscapes. The peculiarity of this breed, which by some has been distinguished from the common sheep (*Ovis aries*) under the name of *Ovis laticaudata*, is the enormous development of fat on the tail. This is the only race we noticed in the southern parts of the country, and it seems to have been the breed of the ancient Israelites, the fat of the tail being spoken of as the rump."

Both Herodotus and Aristotle especially mention the broad-tailed sheep of Arabia and Syria. The tail is simply a mass of fat, and is used for grease, for lamps, and for cooking. The Arabs fry it in slices, and esteem it a delicacy ; but it is very like fried tallow. The enormous development of the tail appears to abstract both flesh and fat from the rest of the body. Though the carcase does not weigh more than fifty or sixty pounds, the tail will average ten pounds, and I have known it fourteen pounds. The horn of the Syrian ram is very large, not spiral, but recurved under the ear.



THE SYRIAN GOAT.



THE domestic goat (*Capra hircus*), offers, like all thoroughly reclaimed animals over whom man has held a long continued influence, an almost endless number of varieties, as it respects size, colour, and the quality of the hair; nay, even the magnitude and number of the horns. The goats of Angora and Cappadocia have long been celebrated for their soft and silky hair, forming the staple of the cloth called camlet.

In Thibet there is a breed furnished with an undercoat of wool of exquisite fineness and delicacy; it is from this that the so much valued Cashmere shawls are fabricated. Upper Egypt has a race, on the contrary, with close smooth hair, a convex forehead, and a projecting lower jaw. The goat is abundant in Syria, where the nature of the pasturage is such as peculiarly befits it, and where it was formerly and is still kept in flocks, tended by keepers of the fold. Numerous are the allusions to it in the Holy Scriptures, from which we learn that it constituted no mean portion of the wealth of a pastoral people; its flesh was used as food, and its hair wrought into cloth. It was among the animals offered up in sacrifice under the Mosaic dispensation; and who does not recollect the scapegoat? "Then shall he *kill the goat* of the *sin-offering*, that is for the people, and bring his blood within the vail, and do with that blood as he did with the blood of the bullock, and sprinkle it upon the mercy seat, and before the mercy seat" (Lev. xvi. 15). "And when he hath made an end of reconciling the holy place, and the tabernacle of the congregation, and the altar, he shall bring a live goat: and Aaron shall lay both his hands upon the head of the live

goat, and confess over him all the iniquities of the children of Israel, and all their transgressions in all their sins, putting them upon the head of the goat, and shall send him away by the hand of a fit man into the wilderness: and the goat shall bear upon him all their iniquities into a land not inhabited: and he shall let go the goat in the wilderness" (Lev. xvi. 20-22).

The Mosaic dispensation was a type of that which was to come; it sets forth a sacrifice of infinite price, to be offered once and for all; one who should bear our sins to a land of oblivion, where they should be remembered no more against us. Christ is the antitype of the sacrifice and of the scapegoat; God "hath laid on Him the iniquity of us all." Let our readers turn to the ninth chapter of Paul to the Hebrews: "Christ being come an High Priest of good things to come; neither by the blood of goats and calves, but by His own blood He entered in once into the holy place, having obtained eternal redemption for us."

And again, chapter x.: "For the *law* having a shadow of good things to come, and not the very image of the things, can never with those sacrifices which they offered year by year continually make the comers thereunto perfect." . . . "For it is not possible that the blood of bulls and of goats should take away sins."

Several travellers have noticed a breed of goats in Syria remarkable for the extent and development of the ears, which hang down so as in fact to touch the ground; and it is not a little curious to reflect upon this circumstance, trivial as it may seem in itself, inasmuch as it throws a light upon the expression of Amos: "As the shepherd taketh out of the mouth of the lion two legs, or a *piece* of an ear." Several goats of this race have come under our own observation: their hair is long and flowing; their horns short, and curling close to the head; the ears of amazing size and thickness.

THE COLD SNAP.



N the extremes of winter and summer, when the weather is either extraordinarily cold or hot, I confess to experiencing a peculiar sense of helplessness and vague uneasiness. I have a feeling that a trifling additional rise or fall of temperature, such as might be caused by any slight hitch in the machinery of the universe, would quite crowd mankind out of existence. To be sure the hitch never has occurred, but what if it should? Conscious that I have about reached the limit of my own endurance, the thought of the bare contingency is unpleasant enough to cause a feeling of relief, not altogether physical, when the rising or falling mercury begins to turn. The consciousness how wholly by sufferance it is that man exists at all on the earth, is rather forcibly borne in upon the mind at such times. The spaces above and below zero are indefinite.

I have to take my vacations as the fluctuations of a rather exacting business permit, and so it happened that I was, with my wife, passing a fortnight in the coldest part of winter at the family homestead in New England. The ten previous days had been very cold, and the cold had "got into the house," which means that it had so penetrated and chilled the very walls and timbers, that a cold day now took hold of us as it had not earlier in the season. Finally there came a day that was colder than any before it. The credit of discovering and first asserting that it was the coldest day of the season is due to myself—no slight distinction in the country, where the weather is always a more prominent topic than in the city, and the weather-wise are accordingly esteemed. Every one hastened to corroborate this verdict with some piece of evidence. Mother said that the frost had

not gone off the kitchen window nearest the stove all the day, and that was a sign. The sleighs and sledges as they went by in the road creaked on the snow, so that we heard them through the double windows, and that was a sign; while the teamsters swung their benumbed arms like the sails of a wind-mill to keep up the circulation, and the frozen vapour puffed out from the horses' nostrils in a manner reminding one of the snorting coursers in sensational pictures. The schoolboys on their way from school did not stop to play, and that was a sign. No women had been seen on the street since noon. Young men, as they hurried past on the peculiar high-stepping trot of persons who have their hands over their ears, looked strangely antiquated with their moustaches and beards all grizzled with the frost.

Toward dusk I took a short run to the post-office. I was well wrapped up, but that did not prevent me from having very singular sensations before I got home. The air, as I stepped out from cover, did not seem like air at all, but like some almost solid medium whose impact was like a blow. It went right through my overcoat at the first assault, and nosed about hungrily for my little spark of vital heat. A strong wind with the flavour of glaciers was blowing straight from the pole. How inexpressibly bleak was the aspect of the leaden clouds that were banked up around the horizon! I shivered as I looked at the sullen masses. The houses seemed little citadels against the sky. I had not taken fifty steps before my face stiffened into a sort of mask, so that it hurt me to move the facial muscles. I came home on an undignified run, experiencing a lively sense of the inadequacy of two hands to protect two ears and a nose. Did the Creator intend man to inhabit high latitudes?

At nightfall, father, Bill, and Jim, the two latter being my younger brothers, arrived

from their offices, each in succession declaring, with many "whews" and "ughs," that it was by all odds the coldest night yet. Undeniably we all felt proud of it too. A spirited man rather welcomes ten or fifteen degrees extra, if so be they make the temperature superlatively low; while he would very likely grumble at a much less positive chilliness, coupled with the disheartening feeling that he was enduring nothing extraordinary. The general exaltation of spirit and suspension of the conventionalities for the time being, which an extraordinary hot or cold snap produces in a community, especially in the country, is noteworthy. During that run of mine to the post-office every man I met grinned confidentially, as if to say, "We're hearty fellows to stand it as we do." We regarded each other with an increase of mutual respect. That sense of fellowship which springs up between those associated in an emergency seemed to dispense with ordinary formalities, and neighbours with whom I had not a bowing acquaintance fairly beamed on me as we passed.

After tea, Ella (Ella was a sister) got the evening paper out of somebody's overcoat, and was running it over in the dainty, skimming fashion peculiar to the gentler sex when favouring the press with their attention. It reminds one of sea-birds skimming the water, and anon diving for a tidbit. She read aloud: "Old Prob. reports another cold wave on the way East. It will probably reach the New England States this evening. The thermometers along its course range from 40° below zero at Fort Laramie, to 38° in Omaha, 31° in Chicago, and 30° in Cleveland. Numerous cases of death by freezing are reported. Our readers will do well to put an extra shovelful on the furnace overnight."

"Don't forget that, Jim," said father.

A gentleman friend called to take Ella out to a concert or something of the sort. Her mother was for having her give it up on account of the cold. But it so happens that young people, who, having life before them, can much better afford than their

elders to forego particular pleasures, are much less resigned to doing so. The matter was compromised by piling so many wraps upon her that she protested it was like being put to bed. But, before they had been gone fifteen minutes they were back again, half-frozen. It had proved so shockingly cold they had not dared to keep on, and persuaded themselves accordingly that the entertainment had probably been postponed. The streets were entirely deserted; not even a policeman was visible, and the chilled gas in the street lamps gave but a dull light.

Ella proposed to give us our regular evening treat of music, but found the corner of the room where the melodeon stood too cold. Generally the room is warm in every part, and Jim got upbraided for keeping a poor fire. But he succeeded in proving that it was better than common; the weather was the matter. As the evening wore on, the members of the family gradually edged around the register, finally radiating from it as a centre like the spokes of a wheel, of which the collected feet of the group made the hub.

My wife is from the Southern States, and the huge cold of the North had been a new and rather terrifying experience to her. She had been growing nervous all the evening as the signs and portents of the weather accumulated. She was really half-frightened.

"Aren't you afraid it will get so cold it will never be able to get warm again, and then what would become of us?" she asked.

Of course we laughed at her, but I think her fears infected me with a slight vague anxiety as the evidences of extraordinary and still increasing cold went on multiplying. I had so far gotten over my bravado earlier in the evening that I should have been secretly relieved if the thermometer had taken a turn.

At length, one by one, the members of the family, with an anticipatory shiver over the register, went to their rooms and were doubtless in bed in the shortest possible

time, and I fear without saying their prayers. Finally, my wife suggested that we had better go before we got too cold to do so.

The bedroom was shockingly cold. Going to bed is a test of character. I pride myself on the fact that generally, even when my room is cold, I can, with steady nerve and resolute hand, remove the last habili-ment, and without undignified precipitation reach for and indue the nocturnal garment. I admit, however, that on this occasion I gave way to a weak irresolution at the critical instant and shivered for some moments in constantly increasing demoralization, before I could make up my mind to the final change. Then ensued the slow and gradual conquest of the frozen bed to a tolerable warmth, a result attained only by clever strategic combinations of bed-clothes and the most methodical policy. As I lay awake, I heard the sides of the house crack in the cold. "What," said I to myself with a shiver, "should I do if anything happened that required me to get up and dress again?" It seemed to me I should be capable of letting a man die in the next room for need of succour. Being of an imaginative temperament, not to feel prepared for possible contingencies is for me to feel guilty and miserable. The last thing I remember before dropping off to sleep was solemnly promising my wife never to trust ourselves North another winter. I then fell asleep and dreamed of the ineffable cold of the interstellar spaces, which the scientific people talk about.

The next thing I was sensible of was a feeling of the most utter discomfort I ever experienced. My whole body had become gradually chilled through. I could feel the flesh rising in goose pimples at every movement. What has happened? was my first thought. The bed-clothes were all there, four inches of them, and to find myself shivering under such a pile seemed a reversal of the laws of nature. Shivering is an unpleasant operation at best and at briefest; but, when one has shivered till the flesh is lame, and every quiver is a racking,

aching pain, that is something quite different from any ordinary shivering. My wife was awake and in the same condition. What did I ever bring her to this terrible country for? She had been lying as still as possible for an hour or so, waiting till she should die or something; and feeling that if she stirred she should freeze, as water near the freezing point crystallizes when agitated. She said that when I had disturbed the clothes by any movement, she had felt like hating me. We were both almost scared, it must be confessed. Such an experience had never been ours before. In voices muffled by the bed-clothes we held dismal confab, and concluded that we must make our way to the sitting-room and get over the register.

I have had my share of unpleasant duties to face in my life. I remember how I felt at Spottsylvania when I stepped up and out from behind a breastwork of fence rails over which the bullets were whistling like hailstones, to charge the enemy. Worse still, I remember how I felt at one or two public banquets when I rose from my seat to reply to a toast, and to meet the gaze of a hundred expectant faces, with an overpowering consciousness of looking like a fool, and of total inability to do or say anything which would not justify the presumption. But never did an act of my life call for so much of sheer will-power as stepping out of that comfortless bed into that freezing room. It is a general rule getting up in winter mornings that the air never proves so cold as was anticipated while lying warm in bed. But it did this time, probably because my system was deprived of all elasticity and power of reaction by being so thoroughly chilled. Hastily donning in the dark what was absolutely necessary, my poor wife and myself, with chattering teeth and prickly bodies, the most thoroughly demoralized couple in history, ran down-stairs to the sitting-room.

Much to our surprise, we found the gas lighted and the other members of the family already gathered there, huddling over the register. I felt a sinking at the heart as I

marked the strained, anxious look on each face, a look that asked what strange thing had come upon us. They had been there, they said, for some time. Ella, Jim, and Bill, who slept alone, had been the first to leave their beds. Then father and mother, and finally my wife and I, had followed. Soon after our arrival there was a fumbling at the door, and the two Irish girls, who help mother keep house, put in their blue, pinched faces. They scarcely waited an invitation to come up to the register.

The room was but dimly lighted, for the gas, affected by the fearful chill, was flowing slowly and threatened to go out. The gloom added to the depressing effect of our strange situation. Little was said. The actual occurrence of strange and unheard-of events excites very much less wonderment than the account of them written or rehearsed. Indeed, the feeling of surprise often seems wholly left out of the mental experience of those who undergo or behold the most prodigious catastrophes. The sensibility to the marvellous is the one of our faculties which is, perhaps, the soonest exhausted by a strain. Human nature takes naturally to miracles, after all. "What can it mean?" was the inquiry a dozen times on the lips of each one of us, but beyond that, I recall little that was said. Bill, who was the joker of the family, had essayed a jest or two at first on our strange predicament, but they had been poorly received. The discomfort was too serious, and the extraordinary nature of the visitation filled every mind with nameless forebodings and a great unformed fear.

We asked each other if our neighbours were all in the same plight with ourselves. They must be, of course, and many of them far less prepared to meet it. There might be whole families in the last extremity of cold right about us. I went to the window, and with my knife scraped away the rime of frost, an eighth of an inch thick, which obscured it, till I could see out. A whitish-gray light was on the landscape. Every object seemed still, with a quiet peculiar stillness that might be called intense. From

the chimneys of some of the houses around, thick columns of smoke and sparks were pouring, showing that the fires were being crowded below. Other chimneys showed no smoke at all. Here and there a dull light shone from a window. There was no other sign of life anywhere. The streets were absolutely empty. No one suggested trying to communicate with other houses. This was a plight in which human concourse could avail nothing.

After piling all the coal on the furnace it would hold, the volume of heat rising from the register was such as to singe the clothes of those over it, while those waiting their turn were shivering a few feet off. The men of course yielded the nearest places to the women, and, as we walked briskly up and down in the room, the frost gathered on our moustaches. The morning, we said, would bring relief, but none of us fully believed it, for the strange experience we were enduring appeared to imply a suspension of the ordinary course of nature.

A number of cats and dogs, driven from their accustomed haunts by the intense cold, had gathered under the windows, and there piteously moaned and whined for entrance.

Swiftly it grew colder. The iron casing of the register was cold in spite of the volume of heat pouring through it. Every point or surface of metal in the room was covered with a thick coating of frost. The frost even settled upon a few filaments of cobweb in the corners of the room which had escaped the housemaid's broom, and which now shone like hidden sins in the day of judgment. The door-knob, mopboards, and wooden casings of the room glistened. We were so chilled that woollen was as cold to the touch as wood or iron. There being no more any heat in our bodies, the non-conducting quality of a substance was no appreciable advantage. To avoid the greater cold near the floor, several of our number got upon the tables, presenting, with their feet tucked under them, an aspect that would have been sufficiently laughable under other circumstances. But, as a rule,

fun does not survive the freezing point. Every few moments the beams of the house snapped like the timbers of a straining ship, and at intervals the frozen ground cracked with a noise like cannon,—the hyperborean earthquake.

A ruddy light shone against the windows. Bill went and rubbed away the ice. A neighbour's house was burning. It was one of those whose chimneys were vomiting forth sparks when I had looked out before. There was promise of an extensive conflagration. Nobody appeared in the streets, and, as there were intervening houses, we could not see what became of the inmates. The very slight interest which this threatening conflagration aroused in our minds was doubtless a mark of the already stupefying effect of the cold. Even our voices had become weak and altered.

The cold is a sad enemy to beauty. My poor wife and Ella, with their pinched faces, strained, aching expression, red, rheumy eyes and noses, and blue or pallid cheeks, were sad parodies on their comely selves. Other forces of nature have in them something the spirit of man can sympathize with, as the wind, the waves, the sun; but there is something terribly inhuman about the cold. I can imagine it as a congenial principle brooding over the face of chaos in the æons before light was.

Hours had passed, it might have been years, when father said, "Let us pray." He knelt down, and we all mechanically followed his example, as from childhood up we had done at morning and evening. Ever before, the act had seemed merely a fit and graceful ceremony, from which no one had expected anything in particular to follow, or had experienced aught save the placid reaction that commonly results from a devotional act. But now the meaning so long latent became eloquent. The morning and evening ceremony became the sole resource in an imminent and fearful emergency. There was a familiar strangeness about the act under these circumstances, which touched us all. With me, as with most, something of the feeling implied in the

adage, "Familiarity breeds contempt," had impaired my faith in the practical efficacy of prayer. How could extraordinary results be expected from so common an instrumentality, and especially from so ordinary and every-day a thing as family prayer? Our faith in the present instance was also not a little lessened by the peculiar nature of the visitation. In any ordinary emergency God might help us, but we had a sort of dim apprehension that even He could not do anything in such weather. So far as humbleness was concerned, there was no lack of that. There are some inflictions which, although terrible, are capable of stirring in haughty human hearts a rebellious indignation. But to cold succumb soul and mind. It has always seemed to me that cold would have broken down Milton's Satan. I felt as if I could grovel to be vouchsafed a moment's immunity from the gripe of the savage frost.

Owing to the sustaining power there is in habit, the participation in family devotions proved strengthening to us all. In emergencies, we get back from our habits the mental and moral vigour that first went to their formation, and has since remained on interest.

It is not the weakest who succumb first to cold, as was strikingly proved in our experience. The prostration of the faculties may be long postponed by the power of the will. All assaults on human nature, whether of cold, exhaustion, terror, or any other kind, respect the dignity of the mind, and await its capitulation before finally storming the stronghold of life. I am as strong in physique as men average, but I gave out before my mother. The voices of mother and Bill, as they took counsel for our salvation, fell on my ears like an idle sound. This was the crisis of the night.

The next thing I knew, Bill was urging us to eat some beefsteak and bread. The former, I afterward learned, he had got out of the pantry and cooked over the furnace fire. It was about five o'clock, and we had eaten nothing for nearly twelve hours. The general exhaustion of our powers had prevented

a natural appetite from making itself felt, but mother had suggested that we should try food, and it saved us. It was still fearfully cold, but the danger was gone as soon as we felt the reviving effect of the food. An ounce of food is worth a pound of blankets, Trying to warm the body from the outside is working at a tremendous disadvantage. It was a strange picnic, as, perched on chairs and tables in the dimly lighted room, we munched our morsels, or warmed the frozen bread over the register. After this, some of us got a little restless but forgetful sleep.

I shall never forget my sensations when, at last, I looked out at the eastern window and saw the rising sun. The effect was indeed peculiarly splendid, for the air was full of particles of ice, and the sun had the effect of shining through a mist of diamond dust. Bill had dosed us with whisky, and perhaps it had got into our heads, for I shouted, and my wife cried. It was at the end of the weary night, like the first sight of our country's flag when coming home from a foreign world. In the course of the morning we regained our usual animation.



CROCODILE TALES.

WHILST encamped amongst the Baris of the Nile region, Sir Samuel Baker thus records his troubles with the crocodiles :—

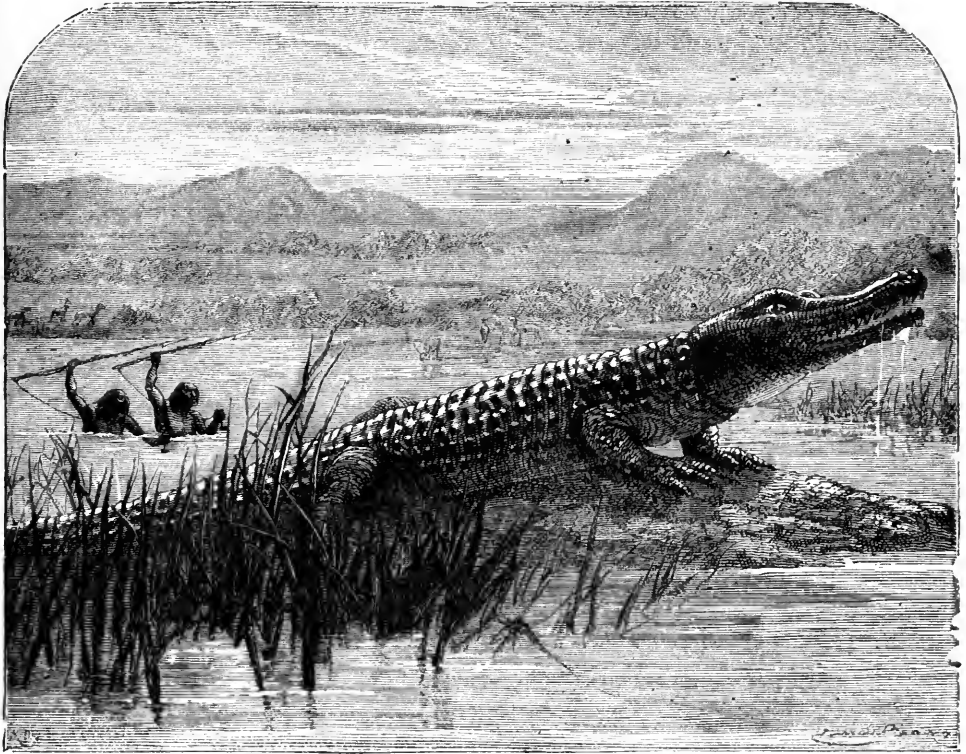
“Our enemies were not confined to the land only : the crocodiles in the neighbourhood of Gondokoro were exceedingly ferocious. As the natives were so much in the habit of swimming to and fro with their cattle, these wily creatures had been always accustomed to claim a toll in the shape of a cow, calf, or nigger. Two of Abou Saood's sailors were carried off on two consecutive days. One of my soldiers, while engaged with many others in the water, only hip deep, was seized by a crocodile. The man, being held by the leg below the knee, made a good fight, and thrust his finger into the creature's eyes ; his comrades at the same time assisted and rescued him from absolute destruction ; but the leg-bone was so smashed and splintered in many places, that he was obliged to submit to amputation.

One of my sailors had a narrow escape. He and many others were engaged in collecting the leaves of a species of water convolvulus that makes an excellent

spinach ; this plant is rooted on the muddy bank, but it runs upon the surface of the water, upon which its pink blossoms are very ornamental.

The sailor was stooping from the bank to gather the floating leaves, when he was suddenly seized by the arm at the elbow joint. His friends immediately caught him round the waist, and their united efforts prevented him from being dragged into the water. The crocodile, having tasted blood, would not quit his hold, but tugged and wrenched his arm completely off at the elbow joint, and went off with his prize. The unfortunate man, in excruciating agony was brought to the camp, where it was necessary to amputate another piece slightly above the lacerated joint.

I made a point of carrying a rifle at all times, simply to destroy these terrible reptiles. There never was a better rifle than the ‘Dutchman,’ made by Holland, of Bond Street. This little weapon was a double-barrelled breech-loader, and carried the Boxer bullet of Government calibre, with a charge of three drachms of powder. The accuracy of both barrels was extraordinary ; it was only sighted up to 250 yards, but by taking the bead very full it carried with great precision up to 300. I could generally make certain of crocodiles



if basking on a sand-bank within a hundred yards, as I could put the bullet exactly in the right place, either behind the eye or right through the centre of his shoulder. This handy rifle weighed $9\frac{3}{4}$ lbs., and throughout the expedition it was almost as much one of my component parts as a bone of my body. I had a large supply of ammunition; thus I never lost an opportunity of shooting at a crocodile's head if I saw one above the surface. On many occasions they never moved from the spot when basking on sand-banks, but were simply extinguished.

One of our women went to the river to wash, but never returned. This was close to our diahbeeah; and the water being shallow, there is no doubt that she was seized by a crocodile.

I was one day returning from headquarters to my station, a distance of a mile and a half along the river's bank, when I noticed the large head of a crocodile about

thirty yards from the shore. I knew every inch of the river, and I was satisfied that the water was shallow. A solitary piece of waving rush that grew upon the bank, exactly opposite the crocodile, would mark the position; thus, stooping down, I quietly retreated inland from the bank, and then running forward, I crept gently towards the rush. Stooping as low as possible, I advanced till very near the bank (upon which grew tufts of grass), until, by slowly raising my head, I could observe the head of the crocodile in the same position, not more than twenty-six or twenty-eight yards from me. At that distance the 'Dutchman' could hit a half-crown; I therefore made sure of bagging. The bank was about four feet above the water; thus the angle was favourable, and I aimed just behind the eye. Almost as I touched the trigger, the crocodile gave a convulsive start, and turning slowly on its back, it stretched its

four legs above the surface, straining every muscle; it then remained motionless in this position in water about two feet deep.

My horse was always furnished with a long halter or tethering rope; so I ordered the syce and another man to jump into the river and secure the crocodile by the rope fastened round the body behind the fore legs. This was quickly accomplished, and the men remained knee-deep, hauling upon the rope to prevent the stream from carrying away the body. In the meantime Monsoor had mounted my horse, and galloped off for assistance to the camp of the 'Forty Thieves.'

Crocodiles are very tenacious of life, and although they may be shot through the brain and be actually dead for all practical purposes, they will remain motionless at first, but they will begin instinctively to move the limbs and tail a few minutes after receiving the shot. If lying upon a sand bank, or in deep water, they would generally disappear, unless secured by a rope, as the spasmodic movements of the limbs and tail would act upon the water, and the body would be carried away.

The crocodile, that had appeared stone dead, now began to move its tail, and my two men, who were holding on to the rope, cried out that it was still alive. It was in vain that I assured the frightened fellows that it was dead. I was on the bank, and they were in the water within a few feet of the crocodile, which made some difference in our ideas of its vivacity. Presently the creature really began to struggle, and the united efforts of the men could hardly restrain it from getting into deeper water. The monster now began to yawn, which so terrified the men that they would have dropped the rope and fled had they not

been afraid of the consequence, as I was addressing them rather forcibly from the bank. I put another shot through the shoulder of the struggling monster, which appeared to act as a narcotic until the arrival of the soldiers with ropes. No sooner was the crocodile well secured than it began to struggle violently; but a great number of men hauled upon the rope, and when it was safely landed I gave it a blow with a sharp axe on the back of the neck, which killed it by dividing the spine.

It was now dragged along the turf until we reached the camp, where it was carefully measured with a tape, and showed an exact length of twelve feet three inches from snout to end of tail.

The stomach contained about five pounds' weight of pebbles, as though it had fed upon flesh resting upon a gravel bank, and had swallowed the pebbles that had adhered. Mixed with the pebbles was a greenish, slimy matter, that appeared woolly. In the midst of this were three undeniable witnesses that convicted the crocodile of wilful murder. A necklace and two armlets, such as are worn by the negro girls, were taken from the stomach! The girl had been digested. This was an old malefactor whose death was a good riddance to the whole of the neighbourhood.

I have frequently seen crocodiles upwards of eighteen feet in length, and there can be little doubt that they sometimes exceed twenty; but a very small creature of this species may carry away a man while swimming. The crocodile does not attempt to swallow an animal at once, but having carried it to a favourite feeding place, generally in some deep hole, it tears it limb from limb with teeth and claws, and devours it at leisure."

ADVENTURE WITH WOLVES.



DURING one of my journeys through Russia (says a writer in the "Leisure Hour") I met with an adventure which still, after a lapse of five years, sends a thrill of horror through me when I think of it. I have seldom spoken of the scene, and never written any account of it. Doing so now may be a pleasant relief to memory, or at least the reader may be pleased at the expense of my recollections.

I was travelling with a brother. Who and what we both are is of no consequence. Suffice it to say that we are inhabitants of Cronstadt, and having liberty to dispose of the winter season as we liked, I proposed to my brother to surprise our sister, then living in Wolsk, a small town some eighty or ninety miles northwards from Saratow, by paying her a Christmas visit. He readily agreed, and having made the necessary preparations, we started on our journey.

I shall pass the tedious travelling by rail to Moscow and thence to Koslov, as it is not my intention to describe the whole journey, which, though some interesting incidents happened to us, is still, more or less, the same that every traveller meets with on the stations, etc. I may only mention that while passing through Taulla, a town renowned in Russia for its manufacture of hardware and arms, I bought a handsome fowling-piece to present to my brother-in-law, who, although not a professed sportsman, yet likes to go for a ramble through the wood now and then. I had the gun loaded in the same town, one barrel with a bullet and the other with coarse shot, in order that I might have a fair trial of it on the road.

As we were in no particular hurry, we rested ourselves in some of the towns that

we passed, until we arrived in Koslov, from which place we had to travel by post sledges, and where we bought a basketful of provisions, such as are necessary for this way of travelling. We had a pleasant journey until we arrived at Kirsauoff. We were warmly dressed, both of us well armed, with a *rortik*, a kind of dagger used by the marine officers, and each had one of Colt's revolvers. The roads were, except in some places, what is generally termed very good, and the weather was between 10° and 15° R. below zero. Owing to our liberal treatment of the station-keepers and the *gemstshik* (driver), we were never detained for horses, which is very often the case. Having passed the night in Kirsauoff, we started early on our journey, and after exchanging horses at the first station, we again went forward, little expecting what was in store for us.

We entered a forest, which extended for about ten miles. The weather was particularly favourable, and bringing our basket to light, we regaled ourselves with a hearty breakfast, at the same time not forgetting to take a good draught from our travelling-flask, with a portion of which we treated the driver, who in return related to us some anecdotes of his life, some of which were very amusing and cheered us not a little. All at once our horses started and showed evident signs of fright. We looked round for the cause of it, when we saw, not above forty yards from us, what we took for a dog, rolling and barking on the snow. We made some remarks to the driver, astonished that the horses should get frightened at a dog, when he told us that this was a wolf. The chance of trying the new gun was too tempting not to give way. Accordingly I told the driver to stop the horses, which was almost an impossible task for him, they being so frightened. However, I watched the opportunity, took a short

aim, and fired. The wolf gave a jump and a howl and then turned into the wood.

I could see that I had wounded him, but no time was allowed to us to pursue him, for scarcely had I fired, when some twenty or thirty wolves rushed out of the forest in pursuit of us with fearful howling, which I shall never forget. There was no need telling the driver to hurry the horses on, for they were flying already of their own accord. But the wolves were as fast behind us, gaining upon us at every minute. It was a fearful moment. The sweat was pouring down our faces, but we had no time to heed it. Afraid of being thrown out of the sledge, from the quickness of our flight, which would have been sudden death, we held on for our life. With our daggers, which were only sharpened at the point, though, fortunately, heavy enough to strike with, we kept the nearest wolves from jumping into the sledge, while we only shot at those nearest to the horses' heads, as we did not dare waste a single shot, not having time to reload our weapons. The horses understood well that their lives depended on the swiftness of their legs, and were literally covered with foam.

Two of the wolves we wounded severely, and when they fell they were instantly torn to pieces and devoured by their own hungry comrades. Others, that we only slightly wounded, still kept in pursuit of us, howling fearfully all the time. With thankful hearts we saw the forest was getting to an end, and we were within a mile from the station, a hut standing a little apart from the adjoining village. Unfortunately, on clearing the forest the roads were worse, and it was a wonder to us how we still kept in the sledge without being thrown out. But the noble horses did not slacken their speed. On nearing the village, the greater part of the wolves held back, but still five or six of them, more ferocious than the rest, were in hot pursuit, which they kept on so perseveringly that they were not three paces

behind us when we came to the gates of the station, against which the horses ran with such a force as to throw them open with the shafts of the sledge. The people in the station, attracted by our shots, and seeing our position through the windows, rushed out, armed with heavy sticks and axes, and successfully drove the wolves back again, who were actually so daring as to pursue us into the very yard of the station.

Even when safe in the enclosure we could hardly believe in our deliverance, and were at least for five minutes staring wildly around us looking defiantly for wolves, until the people could make us understand that we were really quite safe. Never were our thanksgivings more sincere than when we entered the hut. Our driver, who entered with us, crossing himself before the image of the Saviour, said: "Only to God we owe this deliverance," and truly we felt this as much as he did. We remained two days in the village to recover from our fright, and my brother being weaker than myself, I was afraid the frightful shock would make him seriously ill, which would have been another trial, as the nearest surgeon lived in Serdobsk, a town about twenty miles off. During our stay in this village, I learnt that just this time in the year, viz., from the middle of December to the middle of January, the wolves always went in herds, and that the one I wounded first must have been a she-wolf. They rarely venture to attack post conveyances, owing to the noise of the bells, which frightens them, unless driven to it by hunger, or tempted (as in our case) by the passengers. After two days we again started, but this time in company with a merchant, who went the same route as we did, and whose lively spirit made him an agreeable companion to us, and assisted us a great deal to recover from our late adventure. But only the joyful meeting with our sister could entirely pacify us from our encounter and satisfy us with our journey.



MY CAPTIVITY IN ABYSSINIA.

THE strange and unparalleled captivity of a few missionaries and British officials on the rocky heights of Magdala, and their unscathed deliverance, excited much sympathy and interest. One of the missionaries, Mr. Stern, gives a thrilling account in his book, "The Captive Missionary," of the prolonged imprisonment, the savagery of the inhuman Theodore, and the hopes and fears excited by the approach of the expeditionary force under Lord Napier. He says: "Circumstances which were beyond human control unfortunately made me the longest and the most tried of the sufferers. Providence ordered it

so. I had neither committed a political nor a criminal offence worthy of the stick, fetters, the torturing rope, or fifty-two months rigorous captivity. It is true king Theodore asserted that I had defied him, an assertion that was in perfect harmony with his conduct towards every one, whether ambassador, consul, or missionary, who could not minister to his wild ambition or swell the number of his white artisans."

In great bodily suffering and tortured by conflicting emotions at witnessing the tyrannous butchery of his unoffending subjects, the months and years dragged wearily on. At times thoughts of suicide or despairing schemes for escape, alternately occupied their minds. But the year of release was, when they little expected it, at hand.

"On Friday, November 13, 1867, we had a happy day. Messengers from the coast arrived about noon; but it was not before evening that the letters were smuggled into our prison. There were, as usual, none for me. A kind of fatality hung over my letters. My friends wrote, but of the scores which they forwarded not a tithe ever reached me. Vexed and annoyed, I snatched up a fragment of Guizot's '*Histoire de la Civilisation*,' which Mr. Rosenthal had secured during his stay at Gaffat, and began to study the influence of monasticism on the moral and social condition of Europe. A summons to come immediately to Dr. Blanc's hut was significant of good news. The clapping and cheering of several of my companions confirmed my anticipation. 'Cheer up, Stern!' exclaimed the doctor. 'Good news! Troops are coming! Colonel Merewether has landed! Hurrah for old England!' The budget was worthy of the plaudits it elicited from the captives. Oh, it was a happy evening, that 13th of November! Gloom and despondency had entirely vanished. No vacant glance, no dejected countenance, no shaded brow was visible among the eight victims of Theodore's tyranny. Our chains were light, our hearts merry; we were in a transport of delirious joy—a sensation to which the majority, for more than four years, had been perfect strangers.

British troops and King Theodore were now both on the road to Magdala. But who will arrive first? Will our expected liberators forestall our dreaded captor, or will they allow him to inundate the Amba with blood ere they make their appearance? Such and similar reflections forced themselves very soon on our minds, and filled us with intense anxiety and suspense. Never were the chances of freedom and death so equally balanced; never were the steps of friend and foe so eagerly watched. We were approaching the goal of our suffering, the crisis of our fate. A tranquil confidence that the days of banishment and exile were drawing to a close, however, dissipated those gloomy forebodings,

which horrible tortures, ten times worse than death, conjured before the mind. We felt, at least most of us felt, that God had been and would be with us, and this conviction shed a peaceful serenity over our dismal prison home.

Early the following April, a messenger brought a letter from Sir Robert, now Lord Napier of Magdala. The road to the very camp being infested by robbers and insurgents, it was necessary to stitch the missive in a seam of the bearer's ragged inexpressibles to ensure its safety. Theodore was quite indignant at receiving a small note, instead of a large letter. He was told that it was not disrespect, but necessity, that had compelled the commander-in-chief to send such an epistle. 'It is true,' he responded, 'the road is full of thieves and robbers, but who is this man that addresses himself to me? I wrote some years ago to his Queen, and she did not answer me; does he suppose that I shall enter into a correspondence with him? Take the paper away, I don't want to see it.' This was, however, merely bluster; for when the messenger and his own chiefs had retired, he sent for Samuel, and requested to know the contents of Lord Napier's despatch.

In the afternoon of the same day he was angry, passionate, and savage. To quell the fury of his wrath, it was necessary that blood should flow. He had not yet decided on the massacre of his prisoners, but to appease the demon that devoured his heart, a few victims had to be sacrificed. Seven individuals were immediately selected for a holocaust to pacify the blood-thirsty Moloch. Among the innocent sufferers was a young woman and her infant, the wife of the fugitive Becherwand Confou, who had decamped in September last. Ever since the flight of her husband, she had been a prisoner, and probably the long reprieve she had experienced led her to cherish the pleasing illusion that her young life, and that of her babe, would not be sacrificed to the despot's resentment. Poor woman—like hundreds more—she dreamt of life, freedom, and happiness, till the

executioner dragged her and the innocent creature clasped in her slender arms, to a horrible and cruel death.

These incipient butcheries were merely a prelude to still greater atrocities and more extensive massacres. In the afternoon of the next day we were suddenly startled by the sound of an intermittent musketry. I looked out of the tent to see whether the king was *fackering* (bragging). The rush of armed soldiers from every part of the camp, indicated that something serious and disastrous was taking place. All was hushed, as if the silencer of all sounds had suddenly traversed those lines of huts and tents in which noise and clamour perpetually reigned. The rattle of musketry blended with the yells of despair, and the shouts of rage fell, however, with an ominous and appalling horror on our ears. 'What is the matter?' I inquired of my neighbour. 'Hist,' was the response, 'the king is killing all the prisoners.' These terrible words diffused an aguish chill through my very heart. 'What!' I involuntarily ejaculated, 'killing his prisoners—men whose only crime consists in their having served, and served faithfully, too, a tyrant to whom they ought never to have tendered allegiance?' Most of the sufferers were our former companions in the common gaol, which deepened the sympathy we felt for them in their last mortal struggle. The sun had already disappeared from the horizon, and twilight spread a dismal, dusky hue over the scene around, and still the firing continued unabated. With night it gradually diminished, and then only isolated shots reverberated across the panic-stricken camp.

The slaughter lasted about three hours, and during that interval three hundred and seven human beings were, unwarned, and perhaps unprepared, hurled into eternity. Some of the prisoners did not unresistingly yield to their woeful doom. One, Immer Ali, a native of Ferga, near the Tzana Lake, formerly a chief of consideration in his province, in spite of hand and foot chains, with a convulsive grasp dragged his execu-

tioner towards the precipice over which he was to be hurled. The hangman, who dreaded the doom which he intended to inflict on his fellow man, shouted for help. On hearing the cry the tyrant, tiger-like, sprang forward and with his gory sword literally hacked the man to pieces. One victim after another lay writhing and quivering in the last pangs at the foot of the dizzy precipice, and still the tyrant's rage was unappeased. 'Bring the white men, and let their blood flow, mingled with that of my own subjects,' was the order that fell from his lips. Already, we were informed, whole bands of ruffians stood prepared to seize the intended prey, when several chiefs, no friends of the foreign captives, stepped forward, and requested that our execution might be deferred till next day. 'Your Majesty,' they respectfully remarked, 'the white men do not deserve the easy death of the sword and bullet; no, keep them till to-morrow, and then let the slow torture of a flaming hut put an end to their existence.' 'You are right,' was the response.

In the afternoon of the same day we heard that a division of the expeditionary force had approached till within two hours of our fortress. Some of our servants who had followed us came every instant into our huts with some intelligence about the dress, looks, and attitude of the soldiers whom their piercing glances detected on the heights around Arogie. Samuel, who was justly afraid lest their observations should be reported, and draw on us the tyrant's resentment, ordered none to move out of their tents, if they dreaded the whip.

Between three and four p.m., the boom of a distant thunder, which the rocks and cliffs reverberated for miles and miles around the isolated Amba, made us all start on our legs. 'Was that rattle a peal of thunder or the roar of cannon?' formed the question of every lip. Again and again the sky above awakened the sleeping echoes of the surrounding scenes, intermingled apparently with other sounds than those created by the shadowy and hazy clouds that hung pall-like over our homes. It was now no

longer doubtful that the royal artillery was in full play, and that the king was either bragging or engaged in a regular fight. We could not believe that he had ventured to measure his strength with disciplined troops, and the victorious li-li-lil, which floated from the royal camp up to the fortress, where every woman and child repeated the shrill notes, till their throats were hoarse from the exertion, rendered the very thought ridiculous and absurd. At ten o'clock in the evening, Messrs. Flad, Waldemeier, and

several of the king's servants, came to our prison to announce to us the cheering intelligence that a fight had taken place, and that his Majesty's troops had sustained a most signal and fatal defeat. The crest-fallen tyrant who, only little more than eighteen months before, claimed the universe for his realm, had learnt a lesson from the destructive contest at Arobie which, had it been administered to him a few years before, might have spared Abyssinia an incalculable amount of bloodshed,



misery, and desolation. 'Once I thought,' was the message to Mr. Rassam, 'that your people were women, and could not stand before me, but I find that they are men. I have been beaten by the *fit aurari* (advanced guard). My musketeers are dead. Prove that you are my friend, and reconcile me with the man who is stronger than I.' Mr. Rassam returned a polite and most judicious reply. He informed the king that the object of his mission had been the re-

establishment of peace between England and Abyssinia, and that although he had failed in achieving this end, he was still as friendly disposed as ever, and if his Majesty was inclined to listen to his counsel, he would advise him to give up to the commander-in-chief all the prisoners. Not to irritate the chafed lion he, however, proposed to send Lieut. Prideaux as his envoy to Lord Napier, if his Majesty consented to send one of the Europeans

and some of his own chiefs to accompany him.

Excited by drink, his Majesty, when the delegates returned, had become oblivious of the errand on which they had been despatched. Towards dawn the fumes of the alcohol evaporated, and the messengers received instructions to depart for the British camp.

Lord Napier was exceedingly attentive and courteous towards the native envoy, Dejatch Alamie. His affability did not, however, modify his demands for the surrender of all the Europeans, and the unconditional submission of Theodore to the Queen of England, who would award him honourable treatment.

The messengers had been gone about two hours, when the king, goaded to despair by the mad fury that burned in his heart, seized a pistol, and dashing the muzzle into his mouth, wanted to put an end to his own existence. Several of his chiefs promptly wrenched the weapon out of his hand. In the struggle the pistol exploded, and inflicted a wound on the royal ear. The chiefs, who were all deeply affected, urged him to shake off all despondency, and to prove himself worthy of the name he bore. 'Our lives are yours,' they said, 'and we will fight, and if necessary, die with you. Let us bravely defy the Frendjoj, and if they venture to approach, they shall have dead and not living captives.' To this honest remonstrance—and it was honest, for they fell fighting at his side during the capture of Magdala—he deigned no reply, but turning to Betwodet Hassanei and Ras Bissawur, he ordered them to go to our prison and inform us that we were free, and could go to the camp. I could scarcely believe the import of the message, so utterly opposed did it appear to reason, common sense, and the usual tactics of Theodore.

We instantly got ready to obey the royal behest, the most gracious he ever issued, when another messenger arrived to inform us that it was probably too late that day to reach the British camp, and that we should

postpone our departure till the next day. As we all harboured a vague dread that our exit was a mere blind to give *éclat* to some base treachery, we did not regret another night's reprieve. After waiting an hour, more peremptory orders were conveyed to us that we should start. As we emerged out of our prison we encountered many faces bathed in tears. It was touching to see that even at Magdala there were hearts not indifferent to the foreigners, or unconcerned about our freedom and release. The kind and sympathetic groups, like ourselves, imagined that the march into the royal camp was a short funeral procession to execution and the grave. Near the gates of the fortress we met Messrs. Meyer and Saalmüller, two of the European artisans, who were to escort us into the British camp. 'Is there any treachery?' we anxiously inquired of our appointed conductors. 'We are not aware that there is,' was the response. 'We know for certain,' they added, 'that a little while ago the king intended to commit suicide, and had he succeeded in his design, you and every European in the camp would, ere this, have fallen beneath the lances and swords of the enraged chiefs.' That the restraint imposed on the tyrant's violence should, humanly speaking, prove the safeguard of his captives, seemed to me an interposition so miraculous and Divine, that I dismissed all apprehensions, and rapturously contemplated the approaching hour of freedom and liberty.

The order now came that we should quit the camp without delay. We were quite willing to obey this behest, had not two of the chiefs, who were friendly disposed towards us, unsolicited sent a message to their master that we were loth to leave without a parting interview. Certainly we had no desire to encounter once more the ash-coloured countenance and vengeance-flashing eye of Theodore. The chiefs knew that perfectly well, and to forestall that sad catastrophe, which they anticipated the commander-in-chief of the British forces would visit with a retributive vengeance,

they took every precaution to avert it. Two or three messages flew forwards and backwards from the king to his white captives, and at last the order came that his Majesty would receive Mr. Rassam, and no one else.

Our friend, in full diplomatic uniform, and surrounded by a whole concourse of chiefs and royal domestics, hurried on to Fahla, whilst the other seven captives and Mrs. Rosenthal, who was a semi-prisoner, and always associated with us, which was not the case with the rest, were driven along a path that lay at the foot of serrated cliffs and shivered rocks that were literally crowded with spectators. King Theodore, we were told, was not two hundred yards from the spot where we stood. This startled us. Go on—stop—to the right, to the left, were the contradictory commands that hissed in whispering notes along the line formed by the captives and their guards.

Hemmed in by dizzy precipices and lofty rocks, the frowning countenance of the king in front, and the anxious and expectant gaze of numerous guards in the rear, we resolved not to risk the peril of an unguarded step till we positively knew what course to pursue. Pale and trembling we awaited the issue of the next few minutes. The clatter of shields and the glimmer of spears made me turn to the right, and to my amazement I beheld Theodore threading his way between huge blocks towards the path where we were standing. Instantly we all fell prostrate on the ground and saluted him. He looked flushed, distracted, and wild. When close to me, and I was the fifth in the rear, his fiery gaze lighted for a moment on me, and then in a smooth soft tone, he said: 'How are you? Good-bye.' It was the sweetest Amharic to which I had ever listened—the most rapturous sentence that ever greeted my ears. It was said that at the very moment when he dismissed Mr. Rassam, his hand grasped a gun, evidently with the design of discharging it at his white captives. Had he done so, the group of musketeers by whom he was surrounded would have followed his

example. Impelled by an invisible power, the weapon with the rapidity of the lightning's flash, dropped out of his hold, and Divine mercy, not Theodore's clemency, saved us from a violent death.

Slowly and solemnly we marched on our way. There was no haste or hurry which might have aroused the tyrant's wrath, and brought the executioner upon us, but the measured tramp of men who reluctantly leave a spot where they would willingly linger. Once, however, beyond the hated camp, we accelerated our steps, and did not halt till we were within sight of our liberators' closely ranged conical tents. Evening had already set in, and dark shades shrouded every object from our view. On, on we rapidly strode. Suddenly we heard a challenge. They were Indian pickets. They salaamed us in tones of evident pleasure. We advanced. The hum of voices became more distinct. There was a shout, a cheer, and a hurrah. A clear melodious voice resounded far above the hum and murmur of the wide-stretching lines, it was from its accents the voice of an officer, and the message it conveyed was affecting, solemn, and significant. 'God has heard His people's prayer, and disposed King Theodore to let his prisoners go.'

It was, indeed, a wonderful deliverance. King Theodore and his few faithful chiefs had no intention to grant us freedom and liberty. They had resolved to immolate us on that very path, which they foresaw our liberators would, ere many hours had elapsed, traverse. One word, and one only would have stretched us lifeless on the hard and rocky ground. God, however, was with us, and He alone conducted us safely through the midst of the murderous band, who were quite prepared to imbrue their hands in the white man's blood. Twice his chiefs, and particularly Ras Engeda, urged him, as we were quitting the camp, that he should wrench off our hands and feet, and thus demonstrate that he feared no enemy and dreaded no danger. 'No; I have already killed people enough, let the white men go and be free.'

Having yielded to an irresistible power, and given up his most valued hostages, he unhesitatingly complied with Lord Napier's firm and unbending demand, and on the following day, Easter Sunday, surrendered his European workmen and their families. This last act of submission may, perhaps, have been prompted by a faint hope that the commander-in-chief would now withdraw his troops and leave Magdala in possession of a gang of desperadoes, to carry on their atrocious and murderous trade. He forgot the condition imposed on him, and had to learn that a British general is as true to his word as he is faithful to his sword.

I was during the whole of that day in a state of delicious ecstasy and dreamy raptures. Unrestrained freedom appeared to me unnatural. I felt as if I could not divest myself of the idea that I was no longer guarded, that I needed not to conceal every scrap of paper, or burn the letters with which dear friends and kindred in anticipation greeted my safe arrival in the British camp. It was, indeed, a resurrection festival—a foretaste of that glorious resurrection, when the grave will be deprived of its precious treasures, death of its ghastly trophies, and the lap of decay and mortality become the abode of life and everlasting beauty.

In the afternoon, at the request of the senior chaplain, the Rev. E. S. Goodhart, I preached twice in the camp on the solemn subject suggested by the stupendous events of that grand festival of the Church. The roll of the drum, the clash of arms, the long line of troops, and above all, the vague consciousness that I was free, and stood among friends who had encountered innumerable hardships, toils, and privations, to rescue me and my companions out of the fangs of a remorseless tyrant, made my heart gush forth with emotions of the deepest gratitude towards God and man.

Early next morning all the troops marched up to Magdala. King Theodore, to forestall his capture, tried to decamp. His people feigned as if they intended to follow him. There was the usual bustle

and clamour of voices, the saddling of mules, and striking of tents; but after waiting for an hour—an hour in which was crowded and compressed a terrible future—he perceived that he was disobeyed, abandoned, and forsaken by the men in whom his last hopes and expectations were centred. In a trice his charger's head was turned towards the mutinous host. His effort to stimulate their courage and to animate their devotion was in vain. His voice had lost its charm, and his words fell on deaf ears. Indignant, furious, and almost mad, he clutched his pistol and stretched the nearest two dead on the spot where they stood. This outburst of rage did not frighten into submission the rebellious bands, and the dreaded leader of victorious legions, with his few devoted and faithful chiefs, was forced to seek a refuge and shelter from a foe he had so proudly defied, behind the ramparts of a rocky fortress. Desperation imparted vigour to his arm, and valour to his heart. His career of blood was, however, fated to close. He had enthralled myriads and myriads of helpless beings; he had rioted again and again in the throes and agonies of the weak and defenceless; he had literally shed streams of human blood, and now when every prospect looked dark and dismal, that very pistol which had been so familiar with death, became the instrument with which he sealed his own doom.

On the following morning, I rode with Mr. Goodhart and Captain Nicholson up to Magdala. Our path wound along the precipice, where lay in putrefying heaps the slaughtered corpses of the great king's prisoners. The sight made me shudder, and, almost loudly, I ejaculated: 'Here my mortal career would have terminated, had not an invisible power interposed in behalf of a helpless captive and the sharers of his misery.' On the Amba itself all was activity and animation. There was now no longer heard the clank of galling chains, or witnessed the sad glance of despair. Every one looked happy and content. There were still some prisoners with portions of

their fetters dangling on their legs. They had, however, no shadow on their brow ; on the contrary, their hearts were overflowing with an excess of gratitude that stifled their voices, and only in broken accents they could breathe forth their true, genuine, and hearty blessings on their deliverer (Lord Napier). It was quite an exciting scene. The whole fortress swarmed with crowds of the curious and busy. Some collected Theodore's treasures, others despatched them down to the camp, and not a few, like myself, idly sauntered about, to have a full view of a spot that will for generations to come live in the history of British enterprise, energy, and valour. The king had not yet been buried. He was laid out on a stretcher, in a hut which for many months formed the dungeon of one of his white captives.

To behold that man, whose nod or word had often caused myriads and myriads to tremble, now rigid, gory, and dumb, awoke in me many solemn reflections. I now no longer remembered the tyrant who had transformed fertile provinces into

tangled wildernesses, and happy homes into charred ruins. I no longer remembered the sufferings he had inflicted on me for four years and a half. I no longer remembered the throes and agonies of a nation, in which he found his delight to revel. No ; my views wandered beyond the limits of time, and the visions that rose before my mind made me rush out of the familiar hut.

The expedition, undertaken in the cause of humanity, and followed by the prayers of thousands, had achieved a most noble, glorious, and bloodless triumph. Magdala, however, still stood out in bold relief from the surrounding scenery, a proud monument of Theodore's conquest and power. Unexpectedly, on the 17th April, a mass of dense smoke rose in circling columns from the centre of the fortress. In a few minutes it became more bright and luminous. The last stronghold of Theodore was on fire. It was a glorious sight—a sight which thrilled with joy the heart of the Amhara and Galla, the liberated captive and the victorious soldier.





LIVINGSTONE'S LAST JOURNEYS.

DR. LIVINGSTONE had written to the effect that Lake Tanganyika poured its waters into the Albert Nyanza lake of Baker. It was felt at home that this was a matter to be cleared up, and during the opportune visit of Stanley the doctor accompanied him to ascertain the facts of the case.

The doctor then describes his intended route after Stanley left. "I propose to go from Unyanyembe to Fipa, then round the south end of Tanganyika, Tambete or

Mbete, then across the Chambesi, and round south of Lake Bangweolo, and due west to the ancient fountains, leaving the underground excavations till after visiting Katanga. This route will serve to certify that no other sources of the Nile can come from the south without being seen by me. No one will cut me out after this exploration has been accomplished; and may the good Lord of all help me to show myself one of His stout-hearted servants, an honour to my children, and perhaps to my country and my race."

In starting again, he finds that the stores have been robbed. The losses by the Banian slaves were however made up by Mr. Stanley, who gave him twelve bales of calico, fourteen and a half bags of beads, thirty-eight coils of brass wire, a tent, boat, bath, cooking pots, twelve copper sheets and beds, trousers, jackets, and promised to send men, not slaves, from the coast. Four flannel shirts were sent by his daughter Agnes to the doctor, and Mr. Waller two pairs of fine English boots. In spite of the robbers the doctor was not badly set up after all. On the 14th of March Mr. Stanley left. To his care the doctor committed his journal, sealed with five seals.

Dr. Livingstone finally attests that, if one is but civil, he can traverse Africa unhurt from shore to shore. The simple African races would, to all appearance, be reasonably happy were it not for the unmitigated and poisonous curse of slavery, of which the following charming picture of the simplicity of African village life by Dr. Livingstone affords abundant proof: "We came to some villages among beautiful tree-covered hills, called Basilange or Mobasilange. The villages are very pretty, standing on slopes. The main street generally lies east and west, to allow the bright sun to stream his clear not rays from one end to the other, and lick up quickly the moisture from the frequent showers which is not drained off by the slopes. A little verandah is often made in front of the door, and here at dawn the family gather round a fire, and while enjoying the heat needed in the cold that always accompanies the first darting of the light or sun's rays across the atmosphere, inhale the delicious air, and talk over their little domestic affairs. The various shaped leaves of the forest all round their village and near their nestlings are bespangled with myriads of dewdrops. The cocks crow vigorously, and strut and ogle; the kids gambol and leap on the backs of their dams quietly chewing the cud; other goats make believe fighting. Thrifty wives often bake their new clay pots in a fire, made by

lighting a heap of grass roots; the next morning they extract salt from the ashes, and so two birds are killed with one stone. The beauty of this morning's scene of peaceful enjoyment is indescribable. Infancy gilds the fairy picture with its own lines, and it is probably never forgotten, for the young, taken up from slavers, and treated with all philanthropic missionary care and kindness, still revert to the period of infancy as the finest and fairest they have known. They would go back to freedom and enjoyment as fast as would our own sons of the soil, and be heedless to the charms of hard work and no play which we think so much better for them if not for us." How sad the contrast:—

"In some cases we found all the villages deserted; the people had fled at our approach, in dread of repetitions of the outrages of Arab slavers. The doors were all shut: a bunch of the leaves of reeds or of green reeds placed across them, means 'no entrance here.' A few stray chickens wander about wailing, having hid themselves while the rest were caught and carried off into the deep forest, and the still smoking fires tell the same tale of recent flight from the slave-traders."

While Livingstone was thus marching bravely away, fresh expeditions were being prepared in England for his relief. But the health of the great explorer was completely worn out when he reached the southern extremity of Tanganyika in April, 1867, and little reliance can be placed on his observations, as he says that his head was out of order at the time. He was then suffering from a severe attack of fever, and soon afterwards he had lost all count of time. In March, 1869, he passed along the west coast of the lake, at a time when he was again suffering from illness; and during the fourteen hours of March the 7th, making the voyage against a head wind, and most of the time in darkness, he appears to have passed that part of the coast where the outlet actually is. In November, 1871, he made a voyage to the northern end of the lake, and found that

the mouth of the Ruizi is formed of three branches about twelve to fifteen yards broad, and six feet deep, with a strong current of two miles an hour. He ascertained that all the rivers round the northern end flowed into the lake, and thus confirmed Burton's original conclusions. Dr. Livingstone himself does not appear to have formed any definite opinion on the subject of Tanganyika hydrography. At Ujiji he observed that a current flowed northwards at the rate of nearly a mile an hour from February to November. Then evaporation is at its strongest, and the water begins to go gently south, until arrested by the flood from the great rains in February; so that there is a flow and reflow caused by rains and evaporation on the surface of a lake three hundred miles in length. At one time he seems to have thought there was no outlet, for he accounts for the sweetness of the water by the existence of this current flowing "through the middle of the lake lengthways." At another time he says that he has not the smallest doubt that the Tanganyika discharges somewhere, though he may not be able to find the outlet. The question was thus left in a complete state of uncertainty, and the larger portion of the lake was unsurveyed and unvisited, when Lieutenant Cameron reached its shores on the 21st February, 1874, exactly sixteen years after their discovery by Captain Burton.

We now come to the doctor's last Christmas Day. "*25th December, Christmas Day.*—I thank the good Lord for the good gift of His Son, Christ Jesus our Lord. I slaughtered an ox and gave a fundu and half to each party. This is our great day, so we rest. It is cold and wet day and night. The headman is gracious and generous, which is very pleasant compared with some, who refuse to sell, or stop to speak, or show the way."

In January we find the doctor and his men floundering on amongst the marshes. The country at this point, and to the end of his journey, was one continual morass; and he had to march through it, the rivers

only distinguishable from the surrounding waters by their deep currents, and the necessity of using canoes. In a man reduced in strength, writes Dr. Waller, and chronically affected with dysenteric symptoms, ever likely to be aggravated by exposure, the effect may be well conceived. It is possible that had Dr. Livingstone been at the head of a hundred picked Europeans, every man would have been down within the next fortnight. As it is, we cannot help thinking of his company of followers, who must have been well led, and under the most thorough control, to endure those marches at all, for nothing cowers the African so much as rain. Misled by the natives, unable to take astronomical observations on account of the rain, sodden with the wet, it was really wonderful how Dr. Livingstone held out so long. It seems that he was carried across the sponges and the rivulets on the shoulders of one or other of his men.

"*24th January.* Went on east and north-east, to avoid the deep part of a river which requires two canoes, but the man sent by the chief would certainly hide them. Went one and three-quarter hour's journey to a large stream, through drizzling rain, at least three hundred yards of deep water, amongst sedges and sponges of a hundred yards. One part was neck deep for fifty yards, and the water cold. We plunged in elephant's footprints one and half hour, then came in one hour to a small rivulet, ten feet broad, but waist deep, bridge covered and broken down. Carrying me across three of the broad deep sedgy rivers, is really a very difficult task. One we crossed was at least two thousand feet broad, or more than three hundred yards; the first part the main stream came up to Susi's mouth, and wetted my feet and legs. One held up my pistol behind; then one after another took a turn, and when he sank into a deep elephant's footprint, he required two to lift him so as to gain a footing on the level, which was ever waist deep. Others went on and bent down the grass to insure some footing on the side of

the elephant's path. Every ten or twelve paces brought us to a clear stream, flowing fast in its channel, while over all, a strong current came bodily through all the rushes and aquatic plants. Susi had the first spell, then Fari Jala, then a tall, stout, Arab looking man, then Amoda, then Chauda, then Wade Sale; and each time I was lifted off bodily, and put on another pair of stout willing shoulders, and fifty yards put them out of breath,—no wonder it was sore on the women folk of our party. It took us full one hour and a half for us all to cross over, and several came over twice to help me and their friends. The water was cold, and so was the wind, but no leeches plagued us. We had to hasten on the building of sheds, after crossing the second rivulet, as rain threatened us. After 4 p.m. it came on, a pouring cold rain, when we were all under cover. We are anxious about food. The lake is near, but we are not sure of provisions, as there have been changes of population. Our progress is distressingly slow. Wet, wet, wet,—sloppy weather, truly; and no observations, except that the land near the lake being level, the rivers spread out into broad friths and sponges. The streams are so numerous that there has been a scarcity of names. Here we have Loon and Luena. We had two Loons before, and another Luena." All laboured in vain; how true it is, Man proposes, but God disposes. In 1873, Dr. Livingstone is still wandering amongst these dismal swamps, deceived by the native chiefs, and often robbed by his own people. On July 14th he affectingly writes, "If the good Lord give me favour, and permits me to finish my work, I shall thank and bless Him; though it has cost me untold toil and pain and travel. This last trip made my hair all grey." Nothing can add to the deeply suggestive force of those last words of the traveller, faint but pursuing. There is a good deal of his old sagacity with him to the last. "If Matipa fails us," he writes, "we must seize canoes, and go by force. The men say fear of me makes them act very cowardly. I have gone among the whole population kindly

and fairly, but I fear I must now act rigidly; for when they hear that we have submitted to injustice, they at once conclude that we are fair game for all, and they go to lengths in dealing falsely that they otherwise would never attempt. It is, I can declare, not my nature, nor has it been my practice, to go with my back up."

On Livingstone's last birthday, we have the following writing: "*19th March.*—Thanks to the Almighty Preserver of men for sparing me thus far in the journey of life! Can I hope for ultimate success? So many obstacles have arisen; let not Satan prevail over me, O my good Lord Jesus."

To the last Dr. Livingstone was able to seek out novelties in natural history, and to describe them. He mentions a species of fish which has the lower jaw turned down into a hook, which enables the animal to hold its mouth close to the plant as it glides up and down sucking in all the soft pulpy food; the superabundance of gelatinous nutriment makes these animals increase in bulk with extraordinary rapidity, and the food supply of the people is plenteous in consequence. But, as regards the writer, alas! that matters little. Nearer and nearer, day by day, he was coming to the end of his travels, and to his crown of glory; though not in the manner he had anticipated or proposed himself.

It is a painful effort to realize all the suffering of the great traveller in this most wearisome of marches, with health gone, strength gone, and life fast ebbing away. At length Chitambo's village was reached, and here he died. This was on April 30th, 1873. When Chitambo called, the doctor was too weak to see him, and sent word that he would see him on the morrow. Alas! that morrow he never saw. All day long his servants watched him carefully, all feeling that the end could not be far off. As the night advanced it was evident that his mind began to wander. "Is this the Luapula?" he asked. "No," was the reply; they were in Chitambo's village near the Mulilamo; and then he was silent for a while; and then, as if he could not get the

idea out of his head, he returned to it again, asking, "How many days is it to the Luapula?" "I think it is three days," was the reply of Susi. "A few seconds after," writes Mr. Waller, "as if in great pain, he half sighed, half said, 'Oh, dear, dear!' and then dosed off again. It was almost half an hour later that Susi heard Mjwara again outside the door, 'Bwana wants you, Susi.' On reaching the bed the doctor told him he wished him to boil some water; and for this purpose he went to the fire outside and soon returned with the copper kettle full. Calling him close, he asked him to bring his medicine chest and to hold the candle near him, for the man noticed he could hardly see. With great difficulty Dr. Livingstone selected the calomel, which he told him to place by his side; then directing him to pour a little water into a cup, and to put another empty one by it, he said in a low, feeble voice, 'All right; you can go out now.' These were the last words he was ever heard to speak."

At four a.m., or thereabouts, the lad Mjwara was alarmed, and cried out to Susi, "Come to Bwana; I am afraid; I don't know if he is alive," and the men went, all of them, and looked inside the hut. Passing inside, they looked towards the bed; Dr. Livingstone was not there. By the dim candle-light they found him kneeling by the bedside, his body stretched forward, his head buried in his hands upon the pillow. They watched for some sign of life, but in vain; the great traveller, the enterprising, the noble Christian, was no more.

The poor men thus bereft of their leader did all that could be expected under the circumstances. They took care of his effects, the tin boxes in which his manuscripts were preserved, his rifles, sextants, his Bible and Church Service, and the medicine chest. They elected Susi and Chumah as chiefs of the caravan, and started off for their long journey to Zanzibar, actually keeping Chitambo in ignorance of the decease of Livingstone to avoid the heavy fine which otherwise they might

have to pay. In reality the secret oozed out, and Chitambo behaved better than was expected. And at his suggestion all due honours were paid the dead; Chitambo, at the head of his people and accompanied by his wives, taking part in the proceedings. A separate hut was built for the corpse; close to this building the men constructed their huts, and then built a high stockade all round. It was hoped thus that they would be able to preserve the doctor's body with salt which they purchased and with brandy which they found in the doctor's stores. On the 3rd of May a special mourner arrived, to chant monotonously as he danced a song, the burden of which was—

"To-day the Englishman is dead
Who has different hair from ours;
Come round to see the Englishman."

The heart was placed in a tin box and buried reverently, while Jacob, one of the men, read over it the funeral service. At the end of fourteen days, the corpse, which was literally dried, was placed in calico. Next they deposited it in a case made of the bark of a myonga tree, over which a piece of sail cloth was sewn. The package afterwards was well tarred, and then lashed firmly to a pole to be carried by two men. Siecole and Wainwright then carved an inscription on a large tree of the date of Dr. Livingstone's death, and a parting request was made to Chitambo to keep the grass around clear, so as to ward off the bush fires. Two high posts, with an equally strong cross piece besides, were erected and well tarred, as a memorial of the fact that there a white man had died.

Under great discouragement and some presence of sickness the return journey was commenced. On the third day of the march quite half the men were unable to go any farther. A few days after two of the women of the party died, and they found, as, indeed, the natives told them, the district was notoriously an unhealthy one. In time they reached the broad waters of the Luapula. On the first night of encamping beyond it they lost the donkey which had

borne Livingstone so far. In the middle of the night a great disturbance, coupled with the shouting of Aurora, aroused the camp. The men rushed out, and found the stable broken down and the donkey gone. Snatching some logs, they set fire to the grass, as it was pitch dark, and by

the light saw a lion close to the body of the poor animal, which was quite dead. Those who had caught up their guns on the first alarm fired a volley, and the lion made off. It was evident that the donkey had been seized by the nose and instantly killed. At daylight the grass showed that the



LIVINGSTONE'S FOLLOWERS BRINGING HIS BODY TO THE COAST.

firing had taken effect. The lion's blood lay in a broad track, for he was apparently injured in the back, and could only drag himself along; but the footprints of a second lion were too plain to make it advisable to track him far in the thick cover he had reached, and so the search

was abandoned. The body of the donkey was left behind, but the carcase remained near the village, and it is most probable that it went to make a feast at Chisalunda's, a neighbouring headman or potentate.

On their onward way one of their number, firing wildly at a cow which had

been given them, smashed a poor fellow's thigh. The surgical operation resorted to was of the rudest character. First of all a hole was dug two feet deep and four in length, in such a manner that the patient could sit in it with his legs out before him. A large leaf was then bound round the fractured thigh, and earth thrown in, so that the patient was buried up to the chest. The next act was to cover the earth which lay over the man's legs with a thick layer of mud; then plenty of sticks and grass were collected, and a fire lit on the top, directly over the fracture. To prevent the smoke smothering the sufferer, they held a tall mat as a screen before his face, and the operation went on. After some time the heat reached the limbs underground. Bellowing with fear and covered with perspiration, the man implored them to let him out. The authorities, concluding that he had been under treatment a sufficient time, quickly unbound him and lifted him from the hole. He was now held perfectly fast, whilst two strong men stretched the wounded limb with all their might. Splints duly prepared were afterwards bound round it, and we must hope that in due time benefit accrued; but as the ball had passed through the limb, we must have our doubts on the subject. The villagers told Chumah that after the Wanyamwesi engagements they constantly treated bad gunshot wounds in this way with perfect success.

On their way many difficulties seem to have surrounded the little band. In many places they met with but a surly welcome. On one occasion they came into collision with the inhabitants of a town of Chawende's. Refused admission into it, one of them got through, then climbed the stockade, and opened the gate for the others. While they were looking about for huts in which to place their things, the chief's son, a drunken fellow, drew a bow and hit one of the men. This led to a general scrimmage. The men drove their assailants out of the town, who had beaten the drum and called out all the people for war. After this they made themselves safe

for the night; and as, by fortune of war, sheep, goats, fowls, and an immense quantity of food fell into their hands, they remained there a week to recruit. Once or twice they found men approaching at night to throw fire on the roofs of the huts from the outside; but with this exception they were not interfered with. On the last day but one a man approached and called to them at the top of his voice not to set fire to the chief's town, for the bad son had brought all this upon them. It was a pity such a little awkwardness should have occurred; but after all we must remember that the men did their best, they acted according to their logic, and, what is best of all, succeeded in their aim, in bringing back Livingstone's body to his native land. It is really very creditable to them that they did what they did. On a subsequent occasion some villagers tried to pick a quarrel with them for carrying flags,—as it was their invariable custom to make the drummer boy, Majuara, march at their head, whilst the union jack and the red colours of Zanzibar were carried in a foremost place in the line. Fortunately, a chief of some importance came up and stopped the discussion, or there might have been more mischief. As the men by this time knew their own strength, they were not much inclined to lower their flags.

Onward went our party of blacks, bearing their precious burden. All around them were wars and rumours of wars. Man's natural state is certainly one of war, so far as the natives of Africa are concerned. At Kunitakumla's they lost one of their Nassick boys, and waited for him in vain. Some thought he went off rather than carry a load any farther; others feared he had been killed. They searched for him five days in vain, and the poor fellow was left to his fate. In this quarter there were many slaves. On one occasion they saw five gangs bound neck to neck by chains and working in the gardens outside the houses. Coming nearer to Unyanyembe and hearing more definitely of a Livingstone Search Expedition, Jacob Wainwright, the

scribe of the party, was commissioned to write an account of the doctor's death, which he did, and sent it on by Chumah. He managed to reach the Arab settlement, and to find there Lieutenant Cameron, to whom he detailed the distressing information. After resting one day, Chumah returned to relieve his comrades according to promise, and then the weather-beaten party made their way into the Arab settlement of Kwi-hara, where they met Lieutenant Cameron and his men. They found the English officers extremely short of goods; but Lieutenant Cameron, no doubt with the object of his expedition full in view, very properly felt it to be his duty to relieve the wants of the party that had performed this herculean feat of bringing the body of the traveller he had been sent to relieve, together with every article belonging to him at the time of his death, as far as this main road to the coast.

Here in Kwi-hara the doctor had deposited four bales of cloth as a reserve stock with the Arabs, and these were immediately forthcoming for the march down; also they were provided with a companion in the person of Lieutenant Murphy. Dr. Dillon also came back with them.

At Kasehera the body of Livingstone was removed from the package of bark, which package was buried in order to make the people believe that the party were not carrying the corpse through the country, otherwise it was feared that they would have to encounter the most unrelenting hostility all along the way. Artfully Susi and Chumah re-packed up the body so as to make it appear like an ordinary travelling bale. They then made up another package, which they sent back, or rather pretended to send back, to Unyanyembe. When the men had gone back far enough, they got rid of their pretended corpse, sprang into the long grass, and found their way back to their travelling companions, who had remained waiting for them all night.

In February, 1874, the party arrived at Bagamoyo. Speedily one of Her Majesty's cruisers conveyed the acting consul, Cap-

tain Prideaux, from Zanzibar to the spot which the *cortège* had reached, and arrangements were made for transporting the remains of Dr. Livingstone to the island, some thirty miles away. Mr. Waller recalls attention to the fact that of all the train of Indian sepoy, Johanna men, Nassick boys, and Shupanga canoemen who accompanied Dr. Livingstone when he started from Zanzibar in 1866, only five could answer to the roll-call as they handed over the dead body of their leader to his countrymen on the shore whither they had returned, and this after eight years' desperate service. We owe much to those truly noble and faithful blacks.

Of Chumah and Susi, the favourite personal attendants of the doctor, a little more may be said. It was Chumah, who when quite a child was rescued with many others by the doctor and his followers from slave drivers who were taking them down to the coast, and who, after ten years' faithful service travelling with his master through friendly and unfriendly districts and over some thousands of miles of swamp-jungle and desert, came along to Unyanyembe with the news that his master had died and his fellow-servants were bearing the body thither. Susi, Dr. Livingstone's special favourite, had also been with him ten years, and tended him in his last moments. Both lads have had the advantage of regular schooling, and spoke very good English; a fact which naturally astonished Mr. Stanley when he came suddenly upon them at Ujiji, and was pointedly saluted by each in turn with "Good morning, sir."

The body of Livingstone was brought from Zanzibar to Aden in the *Calcutta*. No ceremony was observed, but the British and consular flags, as well as the flags of several vessels in the port, were lowered while the body lay in harbour.

On Saturday, April 18th, 1874, the body of the great explorer was borne, amid testimonies of profound respect from great numbers of people, to its final home in Westminster Abbey.

REMARKABLE SNOW-STORMS.



It is recorded, in the register of the parish of Wotton Gilbert, that snow began to fall on the 5th of January, 1614, and continued until the 12th of March following. It is not to be understood that the fall was uninterrupted through this interval, but that probably there was not a single day without the appearance of flakes or sleet. An immense number of human lives and of cattle was lost. This is the longest snow-storm of which we have met with any notice in the public or domestic chronicles of Great Britain. What was its geographical area is unknown, but we have accounts of some very wide-spread falls.

One of the most extensive snow falls commenced May 6th, 1832, when Pachtusoff, the Russian navigator, was at Nova Zembla, and Helmersen was travelling in the Ural mountains. The descent was experienced from the former locality, through the whole range, a distance of nearly fifteen hundred miles. The great storm on the night of December 24, 1836, with which we were familiar, was also remarkable for its extent as well as for its violence, the wind blowing a hurricane. Snow covered the sixty thousand square miles of England and Wales, in many places to the depth of several feet; and all the roads of the kingdom were either obstructed or rendered quite impassable, till cuttings had been made through the drifts. At Lewes, an avalanche fell from the cliffs, destroying a number of houses and burying the inhabitants in the ruins. The storm prevailed over the north of Germany, all Holland, and the greater part of France and Spain. In the latter country, the whitened fields around Bilbao soon received a different tinge from the

blood of Espartero's soldiers, who were then prosecuting the war against the Carlists.

There is something eminently beautiful in the gentle descent of snow, as the features of the rural landscape, field, wood, homestead, and ivy tower are silently mantled with the pure and delicate material. But the scene becomes highly imposing in a mountainous country, when the gale blows tempestuously, and the flakes are driven along in clouds of irregular density, now obscuring the nearest objects, shutting out heaven and earth from sight, and then revealing for a moment, between the flying volumes, patches of sky aloft, with surrounding outlines of terrestrial nature. The storm is enjoyable by the side of the hearth-stone; but it is perilous enough, and often fatal, to the lone wayfaring stranger whose track is obliterated, and to shepherds and their flocks in distant wilds. In 1719, an army of seven thousand Swedes perished in a snow-storm upon the mountains of Rudel, in their march to Drontheim.

In the remote pastoral districts of the Scottish highlands, traditionary relations of destructive snow-falls, exciting adventures, and narrow escapes, are current among the peasantry, and are often recurred to by the ingle-nook, as the wind whirls the drift around their cabins on winter nights. The "Thirteen Drifty Days" designate, in legendary lore, a specially severe interval in the year 1620, during which the snow fell on the frosted ground day and night, with little intermission. The cold was intense to a degree never before remembered; the wind was keen and biting; and through the whole period the sheep never broke their fast. About the fifth and sixth days, the younger part of the flocks began to fall into a torpid state, and soon perished. On the ninth and tenth days, the shepherds commenced forming huge semicircular walls of the dead, in order to shelter the living; but

the protection was of little avail, as want of food aided the havoc of the elements. Impelled by hunger, the sheep were seen tearing at one another's wool with their teeth. On the fourteenth day, at the close of the dismal period, many a high-lying farm had not a survivor of their once extensive flocks. Misshapen walls of dead, surrounding small prostrate groups, alone met the gaze of the owners. Out of more than twenty thousand sheep, in the extensive pastoral district of Eskdale-muir, only forty remained alive on one farm and five on another! The farm of Phants continued unstocked and untenanted for forty years after the storm; and a glen in Tweeds-muir became a common to which any one drove his flocks, and continued so upwards of a century.

A similarly bitter season, but briefer, occurred at the commencement of the year 1795. The snow fell in the night of January 24 and 25; and the storm visited with special violence the south of Scotland, from Crawford-muir to the border. Seventeen shepherds perished, and upwards of thirty were carried home insensible, but afterwards recovered; while the number of sheep that were destroyed was beyond example in the district. So completely were the flocks overwhelmed, that no one knew where they were till the thaw exposed them. Numbers were driven by the violence of the gale into the streams, where they were buried or frozen up, and finally carried out to sea by the subsequent floods. At the beds of Esk, in the Solway Firth, a place where the tide throws out and leaves whatever is borne into the estuary by the rivers, there were found the bodies of one thousand eight hundred and forty sheep, nine black cattle, three horses, two men, one woman, forty-five dogs, and a hundred and eighty hares, besides a large number of inferior animals.

There are instances of sheep surviving an entombment in the snow for a very extraordinary period. In the winter of 1800, one was buried near Kendal for thirty-three days and nights, without the possibility of moving, and yet survived; and another, in

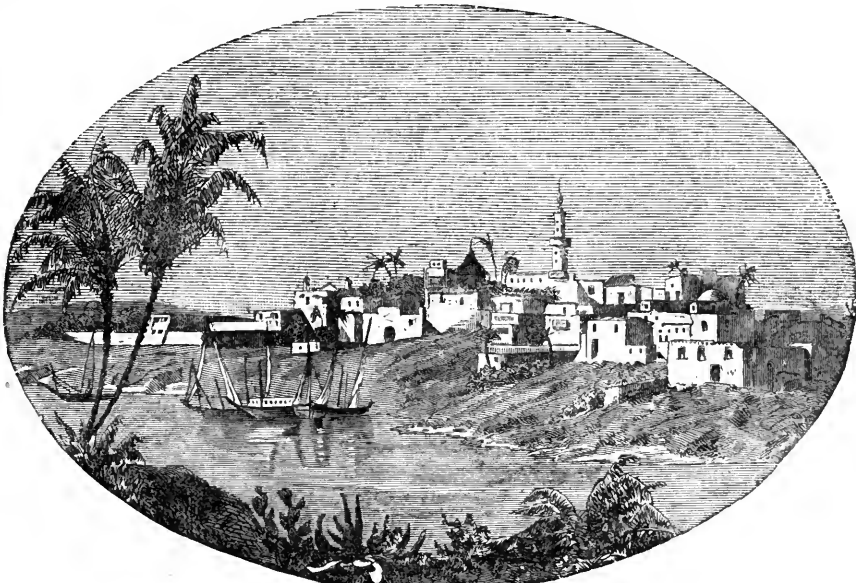
the same winter, near Calbeck in Cumberland, endured a burial of thirty-eight days. When found, it had completely eaten the wool off both shoulders, and was reduced to a skeleton, yet it perfectly recovered. The length of time during which life may be maintained in such circumstances will of course depend upon the natural strength and endurance of the animal, the degree of cold, and the possibility of obtaining a small portion of food. It is often the case in great snow-storms, that the cold is not intense, the thermometer descending only a few degrees below the freezing point; and as snow is itself an imperfect conductor of heat, the objects which it shrouds are kept at a higher temperature than that of the exterior air, and are thus protected from its ungenial influences. Well-authenticated cases are on record of passengers being overwhelmed, and remaining alive for a considerable interval in the snow. In the year 1799, Elizabeth Woodcock, while venturing from Cambridge market to Impingham, was arrested by the drift, and buried in it for eight days and nights. While in this situation, she heard the bells of the village church ring on two successive Sundays, and was found alive; but afterwards died from injudicious though well-intended treatment.

Though with a common reputation for stupidity, the phrase of "the owrie cattle and silly sheep" is not a just description of the latter in a state of nature, or when roused by peculiar circumstances to exercise their powers. They have generally an unerring foresight of an approaching snow-fall, or of the coming wind that will drift what is already upon the ground. Even when the weather-wise shepherd sees no prognostication of a tempest, he may behold his better-instructed flock march away to some known and approved shelter, under the guidance of this instinct. A mountaineer relates, that having left his sheep for the night, in apparently safe and comfortable quarters, he was plodding his weary way homeward, when, before distance and darkness shut them out of view, he looked back to see if they had given over work,

or had ceased to dig for food through the snow which lay upon the surface. To his surprise, they were all marching down hill towards a small plantation, to which he had been accustomed to drive them for shelter when fearing the coming of a storm. They had fallen into rows, and were pacing resolutely after each other, though there was nothing in the aspect of the sky that suggested to him the approach of foul weather.

Hogg relates a remarkable instance of the sagacity of a dog. The storm had raged during the whole night. He and his fellow-servants rose some time before day, for they had a flock of eight hundred ewes a long way distant, and they were resolved to make a bold effort to reach them. The inclosure around the house was not more than three hundred yards across, but the snow had drifted so deeply, and the wind was so violent, that it was full two hours before they cleared it. It was two hours more before they reached the sheep. Some of the ewes were found standing in a close body, but others were covered over with snow to the depth of ten feet. After extricating many, nearly three hundred and fifty

were missing when night closed. The next day the shepherds resumed the search. They passed by a deep glen full of trees; there was not the top of one of them to be seen. They came to the ground where the sheep should have been, but there was not one of them above the snow. Here and there they could perceive the heads or horns of stragglers appearing, and these were easily got out; but when they had collected these few, they could find no more. It was a kind of sloping ground, and the snow was from six to eight feet deep, and under this the sheep were lying, scattered over at least a hundred acres of heathy ground. They went about boring with their long poles, but they often did not find one sheep in a quarter of an hour. At length a white shaggy sheep-dog, named Sparkie, seemed to have comprehended their perplexity; for he began to scrape the snow, and look over his shoulder at them. On going to the spot, they found that he had marked right over a sheep. From that he flew to another, then to another, as fast as they could get them out, and ten times faster, for he had sometimes twenty or thirty holes marked beforehand.



SCENE ON THE NILE

MAORI LIFE AT LAKE TAUPO.



HEARD, when in New Zealand, much of the wondrous region of Taupo, of its snow-capped volcanos, its boiling geysers, and its calm blue lakes, and of the interesting and primitive inhabitants, then in a state of heathenism, who dwelt on the shores of those far-off lakes, and cultivated the smiling valleys and fertile slopes around the steaming cauldron of the lofty and mysterious mountain of Tongariro. Possessed with a desire to penetrate into the heart of New Zealand, to see the strange natural beauties of the land of Taupo with my own eyes, and to make the acquaintance of a race of unsophisticated Maories who had not been spoiled by contact with Europeans, I determined to undertake the journey thither, a somewhat hazardous and difficult pilgrimage.

After long, weary marches on foot, over wide-stretching hills clad with fern breast high, through apparently endless forests, beneath the dense shade of which we struggled onwards for days together, with tangled rope-like vines, fallen trees, and masses of swampy vegetable *débris* obstructing our progress—now creeping on our hands and knees, now jumping over prostrate trunks, and anon sliding down precipitous banks of slippery roots, and enduring all manner of horrors and abominations; after voyaging day after day in a native canoe, paddled against the current of the broad Waikato and the swift-flowing Waipa; after crossing a desolate, uninhabited region of lava and pumice—wading rivers, and sometimes swimming them—and again through copses of fuchsias and more forests, glorious with palms and tree-ferns, and heavy with the fragrance of the *horopito* blossom, we at length saw before

us a cluster of snow-clad mountains, with the mighty Tongariro puffing out its cloud of steam, and a couple of days afterwards we reached the shores of the great Taupo Lake. The journey occupied a month, and I now found myself in the heart of New Zealand—in the very centre of the north island, far away from the sounding sea, from civilization, and from white men—accompanied, it is true, by a couple of Maori youths, who acted as my guides and pack-bearers through the long, weary way, but without any European companion to share my adventures and surprises.

Whilst voyaging up the Waikato river I paid a visit to a most potent chief—a man of mighty influence—who kindly furnished me with a letter of introduction to the venerable and equally potent heathen chief of Taupo. Of this letter—written in the Maori tongue with a sharp style, upon a green flax leaf—the following may be taken as a translation: “Friend Heuheu,—Health to you! Let your hospitality be very great to this stranger who is going to see you. Your name has carried him away. Be kind to this European. Take heed you do not despise my book. By me, your Friend, POTATAU.” Armed with this satisfactory document I felt perfectly at ease, and prepared to cast in my lot for a time amongst a people who were still heathen, and, not long ago, cannibals, without the slightest misgivings as to the probability of my being eaten or otherwise maltreated.

As we reached the lake by a steep descent through beautiful evergreen shrubs, it became evident that we were now in the midst of a populous and cultivated region. Many of the inhabitants were at work in their maize and potato gardens; and as we approached the settlement where we expected to find the chief, the cry of “te pakena” (the stranger) resounded along the hills whilst from eighty to one hundred

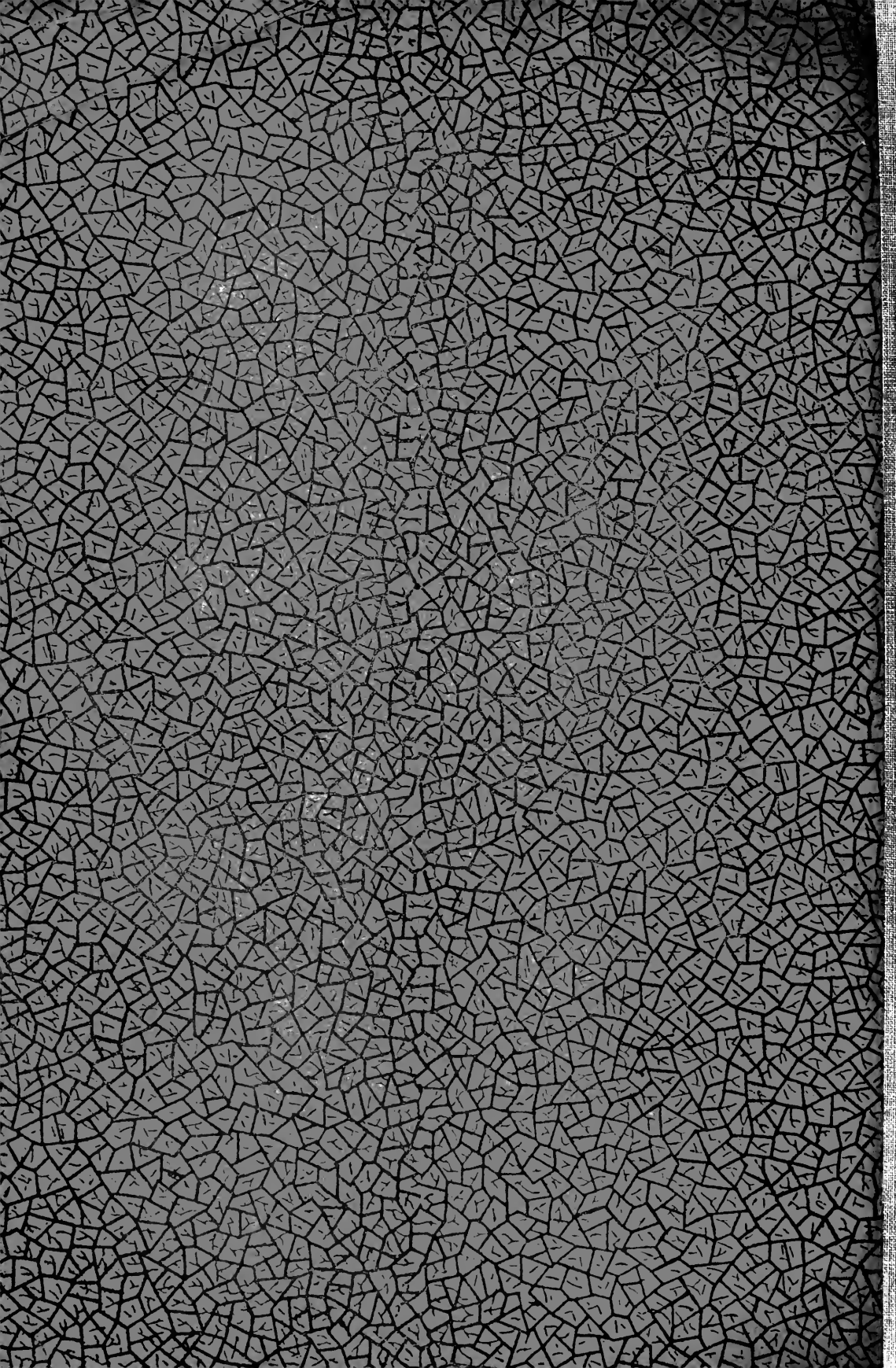
Maories, of both sexes, gradually surrounded us, conducting me to a square open space, in front of the chief's house. Here, according to the rules of Maori etiquette, we all sat down on the ground, in solemn silence, the people continuing to arrive in great numbers. The chief, who had been superintending his work-people and slaves in the plantations, at length made his appearance, and saluted me by pressing his nose against mine, but not uttering a word. After sitting for half an hour in silence so solemn that one could have "heard a pin drop," had there been any pins present, all of a sudden echoes were awakened from the rocks and hills around by the loud "tangi," or chaunt of welcome, that burst from the vigorous lungs of the entire company. At the conclusion of this singular ovation, I felt my own greatness, and proceeded to deliver the introductory flax-leaf to Heuheu in the most dignified manner I could at the moment command. The contents of the missive being read to the chief by one of his grandsons, he at once ordered a large pig to be killed; in the meantime, I was feasted upon sweet potatoes, together with pigeons potted in their own fat in a calabash, and perfectly rancid, no salt being procurable in this inland region. My patron chief was a grand specimen of humanity. He stood nearly seven feet high, and was very corpulent; his hair was as white as the snow on the Tongariro, and his majestic figure was draped in a robe of flax of native manufacture. Around his neck hung a large "tiki," or grotesque image, carved out of green jade; and in his right hand he carried a "meri," a sort of flat weapon about eighteen inches long, formed of the same precious material. Although the husband of no less than eight wives, this patriarchal old gentleman only permitted the favourite one to partake of her meals with him, and then only out of separate calabashes. One of his sons, besides having

six comely damsels betrothed to him for wives, is the fortunate possessor of a horse, with saddle and bridle complete, the only one in all Taupo. This horse was a present from one Nene, a wealthy northern chieftain, and was conveyed overland to Taupo from the port of Tauranga with considerable difficulty by a large body of natives, who were despatched on an expedition for that purpose. The extraordinary excitement produced throughout Taupo by the arrival of so large and singular an animal called into play the imitative faculties of the young Maories, and fully accounted for the numberless charcoal drawings of men on horseback which I noticed on nearly every flat board and smooth post within the settlement. I have seen young Tamiti riding at full gallop along the shores of the lake, his only garment a blue regatta shirt that fluttered loose in the wind, looking very much like an equestrian bas-relief that had made its escape from the frieze of the Parthenon.

Not far from the village there were a number of small geysers on the side of a hill, from whence proceeded little jets of boiling water. Over these jets the old women were wont to cook their potatoes, placing them in flax baskets above the steam. Close to the lake, upon the beach, was a natural hot bath, that was a great attraction to the young folks of both sexes. Boiling springs gush out of the ground above, not far from a large circular basin in the volcanic rock, which, by the aid of a little art, has been converted into a capacious bath. The boiling stream is conducted into this reservoir gradually.

Evening was the favourite time for the bath, and I have frequently seen twenty or thirty persons squatting together in the hot water, with only their heads above the surface. The beauty and symmetry of the limbs of many of the youth of Taupo would render them admirable studies for a sculptor.





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